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Routing Slip

To:	Rare & Misc. Mtls.	Date	7/5/55
To:	Oper Com	Date	7-21-55
To:	Oper Com	Date	12-5-55
To:	J. E. Johnson	Date	12-7-55
To:	Mr. Pritt	Date	12-7-55
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700

FILE COPY
Surname:
FLKnouse
Dr
dlb
Gephen
~~Kilgaard~~
~~Selfridge~~
FLJohnson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

DEC - 7 1955

Mr. Michael H. Green, President
Allied Uranium Mines, Inc.
708 Newhouse Building
Salt Lake City, Utah

Re: Docket No. DMEA-3883 (Uranium)
Sunlight Claims
Emery County, Utah

Dear Mr. Green:

Your application for aid in an exploration project and other information available to us in Washington relating to the subject property have been reviewed.

Projects approved by this Agency, must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information, although noting a small amount of uranium mineralization on your lease, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

Administrator

FLKnouse/izm 12-5-55
cc to: Admr.'s Reading File
Operating Committee
Docket
Code 700
Mr. Knouse
DMEA Field Team, Region III (2)
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

R.C.J.

Docket Copy

700

December 5, 1955

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No.: DMEA-3883

Commodity: Uranium

Applicant: Allied Uranium Mines, Inc.
708 Newhouse Building
Salt Lake City Utah

Property: Three leased lode mining claims, Sunlight Nos. 1, 2, 2A, and 3 located in Sec. 1, T. 23 S., R. 10 E., and Sec. 6, T. 23 S., R. 11 E., S.L.B. and M., Emery County, Utah.

Date of Application: April 22, 1955

Amount of Application: $41,847.50

Work Proposed: The proposed program is designed to explore the Moss Back member of the Chinle Formation, (shown on map of Applicant's geologist as Shinarump), by means of about 2,200 feet of rim stripping, 44 diamond drill plug and core holes averaging 200 feet in depth and totaling 8,800 feet from the surface, and 500 feet of drifting. The work to be divided into two stages: Stage I to include rim stripping and Stage II to consist of drifting to mineralized zones discovered by drifting.

The Applicant conducted a limited exploration program consisting of rim stripping, two short adits that have not exposed any favorable mineralization and five drill holes, one of which is reported to have penetrated mineralized sandstone.

The application was referred to the Field Team for investigation, or a field examination on July 19, 1955.

Field Team Report: Dated November 10, 1955. Recommended that the application be denied.

Excerpts from Field Team Report - dated November 10, 1955:

"The Moss Back sandstone member of the Chinle formation consists of interbedded lenses of fine- to coarse-grained sandstone, conglomerate, and mudstone. The Moss Back sandstone on the Sunlight claims is as much as 80 feet thick, but this is probably not the total thickness since the top of the member has been removed by erosion over much of the property. Local variations in thickness are usually the result of paleostream channels which have scoured down into the underlying Moenkopi formation. Most of the interbedded mudstones are gray in color. Locally, on the Sunlight claims, there is abundant carbonaceous material in the Moss Back sandstone and it is commonly mineralized.

"There are no known ore deposits either on or near the Sunlight group of claims. Allied Uranium Mines, Inc., has driven two short adits into the Moss Back sandstone at locations suggesting a channel. Both adits were started to explore radioactive carbonaceous material which occurs on the cliff face where the channel is exposed. Neither adit intersected mineralized sandstone, and the only mineralization observed on the property is in the form of small streaks of carbonaceous material concentrated along bedding planes.

"The channel for which exploration is proposed is small and not well defined, and the chances of extending and delineating the channel under the proposed drilling area seem slight. There is no place on the property where uranium mineralization can be observed to have impregnated the sandstone. To the contrary, all observable mineralized material known to exist on the property is in the form of carbonaceous material, and appears to be low grade. Only one hole (No. 2), of the five holes drilled by the applicant, is reported to have penetrated mineralized sandstone. The bottom of the mineralization is reported at a depth of 174 feet, and the bottom of the Moss Back sandstone (top of Moenkopi formation) is reported at a depth of 191 feet. Therefore, the bottom of the mineralized material in hole No. 2 appears to be about 17 feet above the base of the Moss Back sandstone. The applicant believes that this drill hole has probably penetrated an ore body which is either localized in an extension of the channel that outcrops and has been explored by the two adits, or occurs in a channel which is a tributary to the outcropping channel. These conclusions are highly questionable because of the following observations:

1. Ore deposits in the San Rafael Swell are not usually found in small, ill-defined channels such as the one being considered.

2. Ore deposits in the San Rafael Swell are almost always localized in the very lowest topographic positions within the channel.

3. Experience has shown that, in the San Rafael Swell, small streaks of mineralized material occurring 15 to 25 feet stratigraphically above the base of the Moss Back are usually mineralized carbonaceous trash pockets localized along bedding planes. Such occurrences seldom, if ever, develop into ore deposits.

4. No ore deposits are known to exist in the general area of the property.

In summary, there is no geologic evidence to assume that the small, ill-defined channel being explored will either extend for appreciable distances under the claims, or that it will contain economic deposits of uranium. There are, however, several geologic factors as mentioned above, which indicate that the channel will not be continuous or contain economic uranium deposits."

"It is concluded that the proposed exploration on the Sunlight claims will not result in discovery of uranium ore bodies of significant size and grade. It is, therefore, recommended that the request for Government assistance in exploration be denied."

Comments of Commodity Specialists:

U. S. Geological Survey, N. E. Nelson, dated November 23, 1955 and U. S. Bureau of Mines, J. E. Crawford, dated November 30, 1955 concur in the denial.

Rare and Miscellaneous Metals Division - F. L. Knouse - December 5, 1955:

Unfavorable results obtained from the Applicants limited exploration program, together with the unfavorable known occurrence of uranium mineralization on the properties in the area, lends strength to the conclusions of the field and commodity members conclusions. Therefore, this Division concurs in denying the application, and a letter was written to the Applicant advising him of the decision.

Ernest Wm. Ellis

Ernest Wm. Ellis, Chief
Rare and Miscellaneous Metals Division

12-1-55 [illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

RECEIVED
DEC - 1 1955

November 30, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 3883, Allied Uranium Mines, Inc., Sunlight claims, Emery County, Utah

I have reviewed the report of examination of Allied Uranium Mines, Inc., DMEA Docket 3883, dated November 10 and received in this office November 22. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

An examination was made of the property of Allied Uranium Mines, Inc., Emery County, Utah, on August 22, 1955, by DMEA field examiners. The examining personnel believe that the proposed exploration program will not result in discovery of significant uranium deposits and recommend denial of the application.

No uranium deposits of economic significance are known on or near the applicant's claims. A limited amount of drifting disclosed one ill-defined channel.

We concur in the recommendation of the Field Team that the application be denied.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

John E. Crawford
John E. Crawford

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

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DEC - 1 1955

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The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

John E. Crawford

11-25-55 rjm

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

November 23, 1955

Re: DMEA 3883
Allied Uranium Mines, Inc.
Sunlight Claims
Emery County, Utah
$41,847.50 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report.

The applicant requested assistance in drilling and drifting in the Chinle formation. The applicant did rim stripping, drifting and drilling. Uranium mineralization was revealed but not in sufficient amounts or grade to suggest a DMEA project is justified.

Since the work already done has failed to show mineralization of ore-making grade and proportions the examiners conclude that the outlook for finding more and better material is unfavorable and recommend denial of the application.

I concur with that recommendation.

N. E. Nelson

N. E. Nelson

RECEIVED
NOV 25 1955

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

November 23, 1955

Re: DMEA 3883
Allied Uranium Mines, Inc.
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I concur with that recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-11/23/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641
J. O. Hosted, 3210

RECEIVED
NOV 25 1955

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

November 23, 1955

Re: DMEA 3883
Allied Uranium Mines, Inc.
Sunlight Claims
Emery County, Utah
$41,847.50 - Uranium

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I concur with that recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
11/23/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641
J. O. Hosted, 3210

RECEIVED
NOV 25 1955

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

November 23, 1955

Re: DMEA 3683
Allied Uranium Mines, Inc.
Sunlight Claims
Emery County, Utah
$41,847.50 - Uranium

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Since the work already done has failed to show mineralization of ore-making grade and proportions the examiners conclude that the outlook for finding more and better material is unfavorable and recommend denial of the application.

I concur with that recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
6-11/23/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641
J. O. Mosted, 3210

RECEIVED
NOV 25 1955

11-22-55 jm

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
NOV 17 1955

November 10, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, DMEA Docket 3883 (Uranium), Allied Uranium Mines, Inc., Sunlight claims, Emery County, Utah

Enclosed are the original and three copies of the report pertaining to the above application.

The examiners conclude that the proposed exploration of the Sunlight claims would not result in the discovery of a significant amount of uranium ore. They recommend that the application be denied, and we concur in this recommendation.

W. M. Traver

By J. W. Townsend
J. W. Townsend

E. N. Harshman
E. N. Harshman

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
11/21/55
(date)

MINERAL DEPOSITS
DMEA
RECEIVED
NOV 7 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

RECEIVED
NOV 17 1955

TRANSMITTED
NOV 10 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

November 3, 1955

Memorandum

To: W. H. Traver, Executive Officer, DMEA Field Team, Region III

From: Stephen R. Wilson

I concur
E.M.H.

Subject: Docket No. DMEA-3883 (Uranium), Allied Uranium Mines, Inc., Emery County, Utah

Attached are the original and 10 copies of a joint engineering and geologic report covering examination of the property of Allied Uranium Mines, Inc., Emery County, Utah. The report was prepared by N. N. Newes, Bureau of Mines, and C. H. Roach, Geological Survey. Also included are copies of a separate section, Summary, Conclusions and Recommendations, and two copies of the brochure. One copy of the brochure was originally transmitted to the Geological Survey, Grand Junction, Colorado.

Allied Uranium Mines, Inc., has requested Federal assistance in an exploratory project on the Sunlight claims. The proposed project consists of drilling 44 holes totaling 3,800 feet and drifting 500 feet, at a total estimated cost of $41,847.50. The applicant controls four unpatented mining claims located near the center of the west edge of the San Rafael Swell. Rocks exposed in the area consist of the Moenkopi formation and the Moss Back sandstone member of the Chinle formation. Known uranium mineralization is found in close association with carbonaceous material in the Moss Back sandstone. However, no uranium deposits of economic significance are known on or near the applicant's claims. One ill-defined channel has been disclosed by a limited amount of drifting.

The examining personnel believe that the proposed exploration will not result in discovery of uranium deposits of significance. Recommendation is made that the request for Government assistance be denied. I concur in this recommendation.

The subject application has been discussed with members of the Atomic Energy Commission.

Stephen R. Wilson
Stephen R. Wilson

Enclosures

cc: W. H. King
J. B. Clemmer

Reviewed by
DMEA OPERATING COMMITTEE
11/21/55
(date)

RECEIVED
NOV 17 1955
TRANSMITTED
NOV 10 1955

ALLIED URANIUM MINES, INC.
EMERY COUNTY, UTAH
DMEA-3883
Uranium

Engineering and Geologic Report

By M. H. Howes
Mining Engineer
Bureau of Mines

C. H. Roach
Geologist
Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
11/21/55
(date)

RECEIVED
NOV 17 1955

ALLIED URANIUM MINES, INC.
EMERY COUNTY, UTAH

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ILLUSTRATIONS

Fig. 1 Location map, Allied Uranium Mines, Inc., Emery County, Utah
Fig. 2 Claim map, showing proposed roads and drill holes
Fig. 3 Geologic map.

INTRODUCTION

An application for Government aid in an exploratory project under Docket No. DMEA-3883, dated April 22, 1955, was submitted by Allied Uranium Mines, Inc., Emery County, Utah. It is proposed to explore the Sunlight claims for uranium ores in the Chinle formation by drilling 44 holes for a total of 8,800 feet and drifting 500 feet, at a total estimated cost of $41,847.50.

A field examination of the property was made August 22, 1955, by C. H. Roach, Geological Survey and M. H. Howes, Bureau of Mines, for the purpose of determining the feasibility of the proposed exploration and the appraisal of the estimated costs and engineering aspects of the job. The field examiners were accompanied to the property by Chester M. F. Peters, representative of Allied Uranium Mines, Inc.

LOCATION, TOPOGRAPHY AND PHYSICAL FEATURES

The property is located near the center of the west edge of the San Rafael Swell in Emery County, Utah, approximately 33 airline miles southwesterly from Green River, Utah. The specific area is Sec. 1, T. 23 S., R. 10 E., and Sec. 6, T. 23 S., R. 11 E., S.L.B. and M. (fig. 1). The property may be reached by driving 4 miles west from Green River on U. S. Highway 50 to Utah State Highway 24, thence about 33 miles southwesterly on Highway 24 toward Hanksville to AEC access road to Temple Mountain and Muddy River, thence about 20 miles westerly on access road to Tan Seep, and thence about 13 miles northerly on dirt road.

The claims include a mesa which rises abruptly more than 200 feet above the surrounding flat terrain. Vegetation is scarce and is comprised for the most part of pinion pines, junipers, and desert plants. The climate is arid. In summer the days are hot and nights chilly; winters are cold.

HISTORY AND PRODUCTION

The claims were located in 1954. Late in 1954 and early in 1955 the applicant conducted an exploratory program which included rim stripping, drifting, and drilling. Although some uranium mineralization was encountered in this work, no ore was developed; and consequently no production has been made.

OWNERSHIP AND EXTENT

Allied Uranium Mines, Inc. is a Delaware corporation whose address is: 708 Newhouse Building, Salt Lake City, Utah. Officers of the company are:

Michael H. Greene, President
80 Warren Street
New York City, N. Y.

Marc White, Secretary
Denrike Building
1010 Vermont Avenue, N. W.
Washington 5, D. C.

Selig Ginsburg, Treasurer
8425 Tenth Avenue
Silver Springs, Maryland.

The property is owned by Harry C. Liles, Airport Chevron Station, Price, Utah, and Imogene Rippey, also of Price. A 99-year lease on the property, held by Carl R. Ferderer, Newhouse Building, Salt Lake City, Utah, and Edward Taylor has been assigned to Allied Uranium Mines, Inc. (fig. 2). That part of the property on which the exploration is proposed consists of the following claims located in Sec. 1, T. 23 S., R. 10 E., and Sec. 6, T. 23 S., R. 11 E., S.L.B. and M., Emery County, Utah, recorded in the Emery County Court House, Castle Dale, Utah:

Name of Claim	Entry No.	Recording Date	Book	Page
Sunlight No. 1	88013	March 16, 1954	J-18	289
Sunlight No. 2	88014	March 16, 1954	J-18	290
Sunlight No. 3	Missing	July 6, 1954	J-27	32
Sunlight No. 2-A	097824	August 16, 1954	J-34	483

GEOLOGY AND ORE DEPOSITS

Parts of the Moenkopi formation and the Moss Back sandstone member of the Chinle formation are the only rocks exposed in the area of the Sunlight claims (fig. 3). The rocks dip about 8 degrees to the northwest.

The Triassic Moenkopi formation consists of red and brown, thinly bedded siltstone and fine-grained sandstone. Only the upper part of this formation outcrops in the area, and the total thickness is not known. The Moenkopi formation is distinguished by its even-bedded units which are persistent for considerable distances.

The Moss Back sandstone member of the Chinle formation consists of interbedded lenses of fine- to coarse-grained sandstone, conglomerate, and mudstone. The Moss Back sandstone on the Sunlight claims is as

much as 80 feet thick, but this is probably not the total thickness since the top of the member has been removed by erosion over much of the property. Local variations in thickness are usually the result of paleostream channels which have scoured down into the underlying Moenkopi formation. Most of the interbedded mudstones are gray in color. Locally, on the Sunlight claims, there is abundant carbonaceous material in the Moss Back sandstone and it is commonly mineralized.

There are no known ore deposits either on or near the Sunlight group of claims. Allied Uranium Mines, Inc., has driven two short adits into the Moss Back sandstone at locations suggesting a channel. Both adits were started to explore radioactive carbonaceous material which occurs on the cliff face where the channel is exposed. Neither adit intersected mineralized sandstone, and the only mineralization observed on the property is in the form of small streaks of carbonaceous material concentrated along bedding planes.

The channel for which exploration is proposed is small and not well defined, and the chances of extending and delineating the channel under the proposed drilling area seem slight. There is no place on the property where uranium mineralization can be observed to have impregnated the sandstone. To the contrary, all observable mineralized material known to exist on the property is in the form of carbonaceous material, and appears to be low grade. Only one hole (No. 2), of the five holes drilled by the applicant, is reported to have penetrated mineralized sandstone. The bottom of the mineralization is reported at a depth of

174 feet, and the bottom of the Moss Back sandstone (top of Moenkopi formation) is reported at a depth of 191 feet. Therefore, the bottom of the mineralized material in hole No. 2 appears to be about 17 feet above the base of the Moss Back sandstone. The applicant believes that this drill hole has probably penetrated an ore body which is either localized in an extension of the channel that outcrops and has been explored by the two adits, or occurs in a channel which is a tributary to the outcropping channel. These conclusions are highly questionable because of the following observations:

1. Ore deposits in the San Rafael Swell are not usually found in small, ill-defined channels such as the one being considered.

2. Ore deposits in the San Rafael Swell are almost always localized in the very lowest topographic positions within the channel.

3. Experience has shown that, in the San Rafael Swell, small streaks of mineralized material occurring 15 to 25 feet stratigraphically above the base of the Moss Back are usually mineralized carbonaceous trash pockets localized along bedding planes. Such occurrences seldom, if ever, develop into ore deposits.

4. No ore deposits are known to exist in the general area of the property.

In summary, there is no geologic evidence to assume that the small, ill-defined channel being explored will either extend for appreciable distances under the claims, or that it will contain economic deposits of uranium. There are, however, several geologic factors as mentioned above, which indicate that the channel will not be continuous or contain economic uranium deposits.

MINABLE ORE RESERVES

No ore reserves are known to occur on the property

PRESENT STATUS

Approximately 1 mile of access road has been constructed to workings and drill hole locations on the claims. Two adits showing a footage of approximately 80 feet and 40 feet, respectively, have been driven northerly into south face of the mesa rim on top of the Moenkopi shale, following the favorable mineralized sandstone bed. Seven holes were drilled on the mesa, north of the adits. There are no buildings on the property.

Mine labor is available at Green River and Price, Utah.

Materials, supplies and equipment necessary for mine operations are available from Price and Moab, Utah.

Water may be obtained from wells within 5 miles of the property.

Power can be supplied by gasoline or diesel engines.

PROJECT PROPOSALS

The applicant proposes to explore the claims for uranium by bulldozer rim stripping approximately 2,200 feet, diamond drilling 44 holes to an average depth of 200 feet, and drifting 500 feet. The approximate locations of 28 of the proposed drill holes are indicated on figure 2 by numbers H1 to H28. These holes are planned for the purpose of delineating the channel and discovery of ore deposits within the channel. The locations of the remaining 16 drill holes will be

determined by the geologic evidence derived from the first 28 holes. The drifting will be accomplished from the best location to cut any mineralization disclosed by the drilling program.

The exploratory work will be divided into two stages. Stage I will include rim stripping and drilling, and Stage II will include the drifting. The applicant's cost estimate is believed to be high. An estimate prepared by the examining engineer is included below.

ESTIMATED COSTS OF PROPOSED EXPLORATION

Stage I

Independent contracts		
Bulldozing		
Access roads, 10 days at $96 per day	$960.00	
Rim stripping, 10 days at $96 per day	960.00	
Total bulldozing cost		$1,920.00
Diamond drilling (44 holes, 200 feet each)		
Plug bit drilling, 8,000 ft. at $1.75 per ft.	$14,000.00	
Core drilling, 800 ft. at $4 per ft.	3,200.00	
Total drilling cost		17,200.00
Surveying		
44 drill holes at $10 per hole		440.00
Personal services		
Supervision (includes geological and engineering service, accounting, reports, etc.), 5 months at $365 per month		1,825.00
Operating materials and supplies		
10 core boxes at $5 each	$ 50.00	
100 survey stakes at $.10 each	10.00	
Total operating materials and supplies cost		60.00

Operating equipment

Rental of radiometric probe	$ 60.00

Miscellaneous

44 assays for U_3O_8 at $3 each	132.00
Total cost of Stage I	$21,637.00

Stage II

Independent contracts

Drifting (includes labor, materials and equipment) 500 feet at $25 per foot	$12,500.00
Surveying, 500-foot drift	250.00

Personal services

Supervision (includes geologic and engineering service, accounting, reports, etc.), 5 months at $365 per month	1,825.00

Miscellaneous

31 determinations for U_3O_8 at $3 each	93.00
Total cost of Stage II	$14,668.00
Total cost of Stage I	21,637.00
Total cost of proposed project	$36,305.00
Government participation at 75 percent	$27,228.75

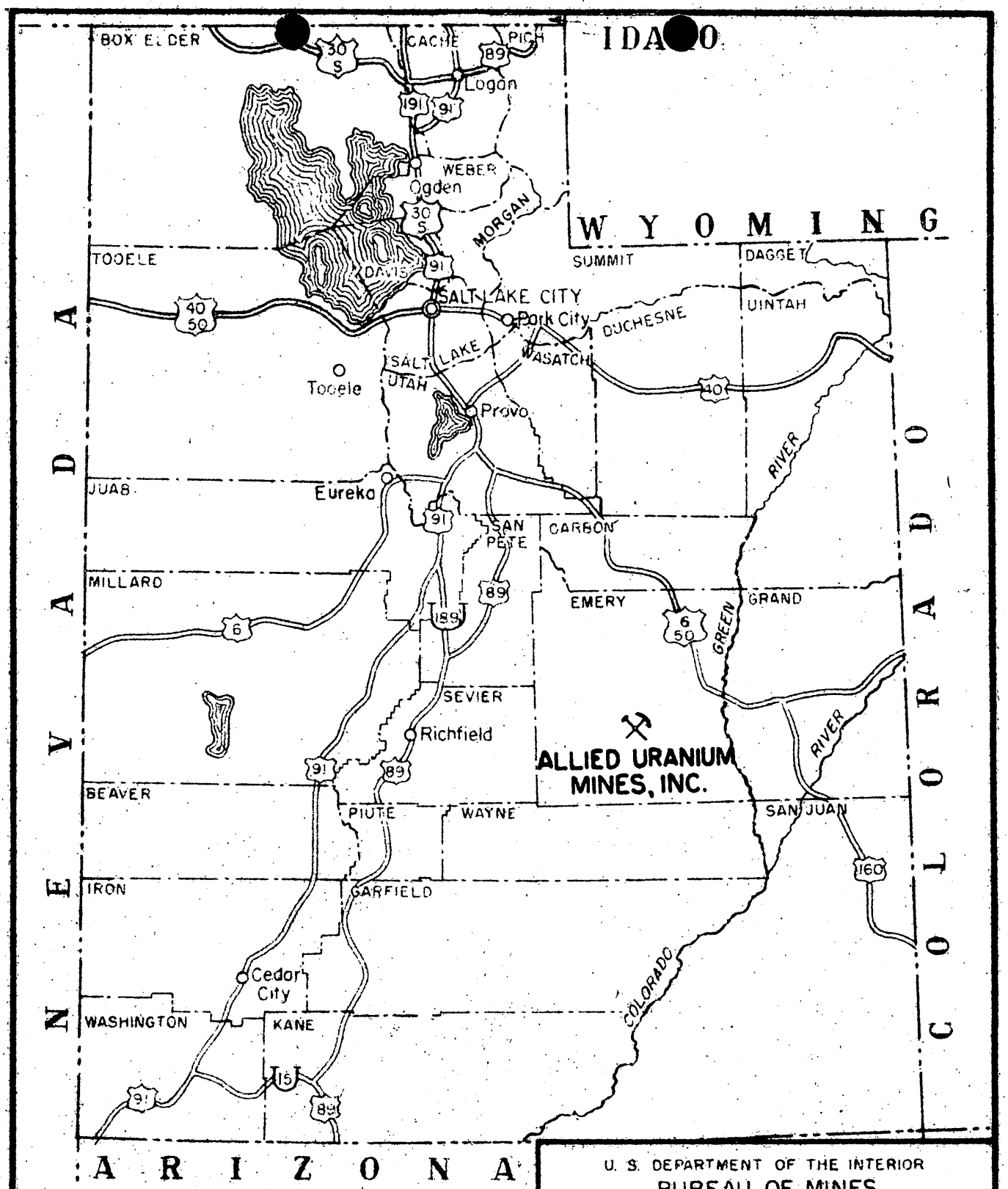
PROPOSED FINANCING

The applicant reports he is prepared to invest $9,076.25 in the proposed exploratory project, which is 25 percent of the estimated cost of $36,305, in accordance with the regulations on Government participation, as stated in Section 7, DMEA Order No. 1 Amended.

CONCLUSIONS AND RECOMMENDATIONS

No deposits of uranium ores are known to exist on or near the general area of the Sunlight claims. The exposed channel on the property is ill-defined and small, and the chances for subsurface extension of the channel are believed poor. All observed mineralization associated with the channel is found with carbonaceous material along bedding planes. Experience in the San Rafael Swell area has shown that such mineralized occurrences alone, rarely, if ever, indicate the presence of ore deposits. Some impregnation of the sandstone by uranium mineralization is believed necessary to indicate an ore deposit in the general area.

It is concluded that the proposed exploration on the Sunlight claims will not result in discovery of uranium ore bodies of significant size and grade. It is, therefore, recommended that the request for Government assistance in exploration be denied.



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

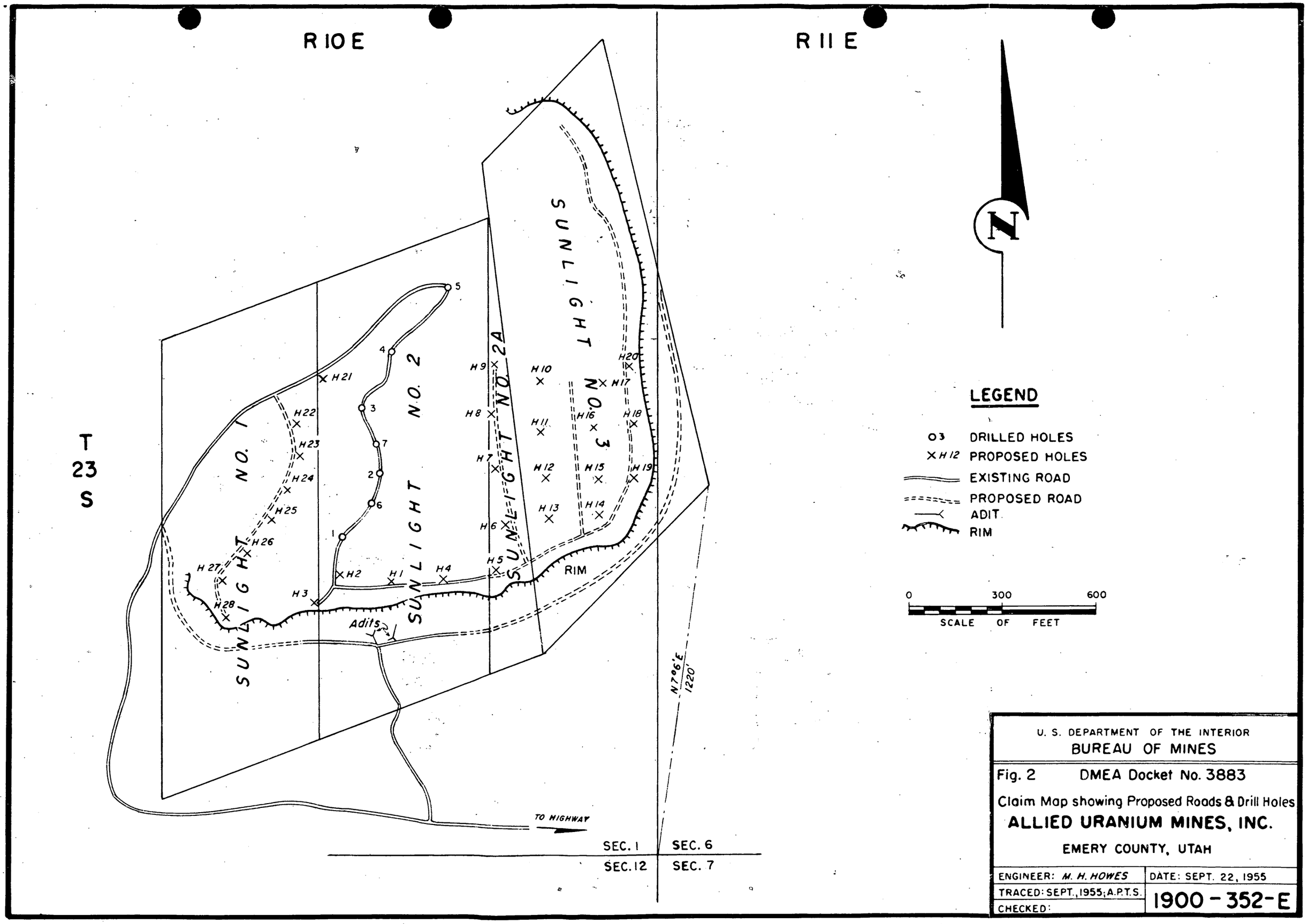
Fig. 1 DMEA Docket No. 3883

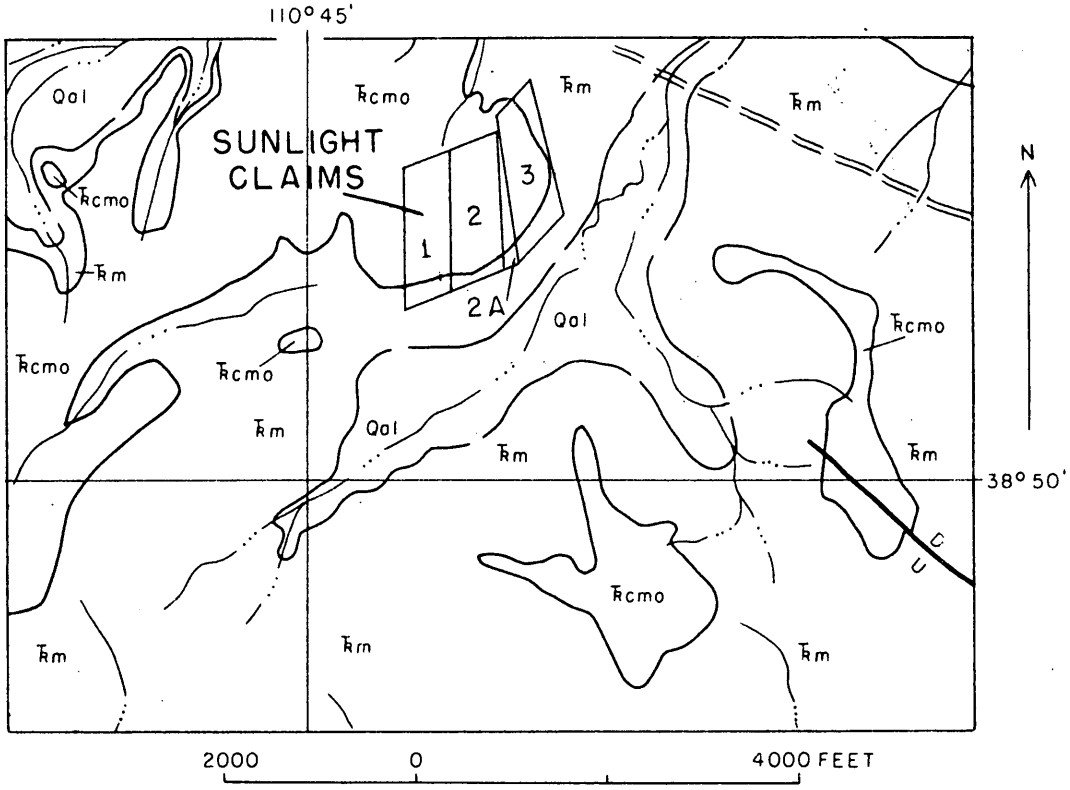
Location Map

ALLIED URANIUM MINES, INC.

EMERY COUNTY, UTAH

ENGINEER M. H. HOWES	DATE: SEPT. 23, 1955
TRACED SEPT., 1955, A.P.T.S.	1900 - 351 - E
CHECKED	


R 10 E
R 11 E
T 23 S
SUNLIGHT NO. 1
SUNLIGHT NO. 2
SUNLIGHT NO. 2A
SUNLIGHT NO. 3
RIM
Adits
TO HIGHWAY
N 76° E 1220'
SEC. 1
SEC. 6
SEC. 12
SEC. 7
N
LEGEND
DRILLED HOLES
PROPOSED HOLES
EXISTING ROAD
PROPOSED ROAD
ADIT
RIM
0
300
600
SCALE OF FEET
U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
Fig. 2 DMEA Docket No. 3883
Claim Map showing Proposed Roads & Drill Holes
ALLIED URANIUM MINES, INC.
EMERY COUNTY, UTAH
ENGINEER: M. H. HOWES
DATE: SEPT. 22, 1955
TRACED: SEPT., 1955; A.P.T.S.
CHECKED:
1900 - 352-E



EXPLANATION

Qal

QUATERNARY ALLUVIUM

Ꞧcmo

TRIASSIC MOSS BACK SANDSTONE MEMBER
OF CHINLE FORMATION

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TRIASSIC MOENKOPI FORMATION

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U

FAULT
SHOWING RELATIVE MOVEMENT

Note: GEOLOGY FROM U.S. GEOLOGICAL SURVEY PHOTOGEOLOGIC QUADRANGLE MAPS, STINKING SPRING CREEK 6, AND 7.

Figure 3. GEOLOGIC MAP SHOWING LOCATION OF THE SUNLIGHT GROUP OF CLAIMS, EMERY COUNTY, UTAH

11-18-55 [illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED NOV 17 1955

November 10, 1955

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, DMEA Docket 3883 (Uranium), Allied Uranium Mines, Inc., Sunlight claims, Emery County, Utah

Enclosed are the original and three copies of the report pertaining to the above application.

The examiners conclude that the proposed exploration of the Sunlight claims would not result in the discovery of a significant amount of uranium ore. They recommend that the application be denied, and we concur in this recommendation.

W. M. Traver

By J. W. Townsend
J. W. Townsend

E. H. Herbsman
E. H. Herbsman

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
12/21/55
(date)

MINERAL DEPOSITS
DMEA
RECEIVED
NOV 7 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

RECEIVED
NOV 17 1955

November 8, 1955

TRANSMITTED
NOV 10 1955

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Region III

From: Stephen R. Wilson

I concur
SRW

Subject: Docket No. DMEA-3263 (Uranium), Allied Uranium Mines, Inc., Emery County, Utah

Attached are the original and 10 copies of a joint engineering and geologic report covering examination of the property of Allied Uranium Mines, Inc., Emery County, Utah. The report was prepared by M. M. Reves, Bureau of Mines, and C. H. Roach, Geological Survey. Also included are copies of a separate section, Summary, Conclusions and Recommendations, and two copies of the brochure. One copy of the brochure was originally transmitted to the Geological Survey, Grand Junction, Colorado.

Allied Uranium Mines, Inc., has requested Federal assistance in an exploratory project on the Sunlight claims. The proposed project consists of drilling 44 holes totaling 8,800 feet and drifting 500 feet, at a total estimated cost of $41,847.50. The applicant controls four unpatented mining claims located near the center of the west edge of the San Rafael Swell. Rocks exposed in the area consist of the Moenkopi formation and the Moss Back sandstone member of the Chinle formation. Known uranium mineralization is found in close association with carbonaceous material in the Moss Back sandstone. However, no uranium deposits of economic significance are known on or near the applicant's claims. One ill-defined channel has been disclosed by a limited amount of drifting.

The examining personnel believe that the proposed exploration will not result in discovery of uranium deposits of significance. Recommendation is made that the request for Government assistance be denied. I concur in this recommendation.

The subject application has been discussed with members of the Atomic Energy Commission.

Stephen R. Wilson
Stephen R. Wilson

Enclosures

cc: W. H. King
J. B. Clemmer

Reviewed by
DMEA OPERATING COMMITTEE
12/21/55
(Date)

TRANSMITTED
NOV 10 1955

ALLIED URANIUM MINES, INC.
RANDY COUNTY, VEIN
DMRA-3083
Uranium

Engineering and Geologic Report

By M. H. Moore
Mining Engineer
Bureau of Mines

C. H. Roach
Geologist
Geological Survey

Reviewed by
DMEA OPERATING COMMITTEE
12/21/55

RECEIVED
NOV 17 1955

ALLIED URANIUM MINES, INC.
EMERY COUNTY, UTAH

CONTENTS

	Page
Engineering and Geologic report	
Introduction	2
Location, topography and physical features	2
History and production	3
Ownership and extent	3
Geology and ore deposits	4
Minable ore reserves	7
Present status	7
Project proposals	7
Estimated costs of proposed exploration	8
Proposed financing	9
Conclusions and recommendations	10

ILLUSTRATIONS

Fig. 1 Location map, Allied Uranium Mines, Inc., Emery County, Utah
Fig. 2 Claim map, showing proposed roads and drill holes
Fig. 3 Geologic map.

INTRODUCTION

An application for Government aid in an exploratory project under Docket No. DMEA-3083, dated April 23, 1955, was submitted by Allied Uranium Mines, Inc., Emery County, Utah. It is proposed to explore the Sunlight claims for uranium ores in the Chinle formation by drilling 44 holes for a total of 2,200 feet and drifting 500 feet, at a total estimated cost of $41,847.50.

A field examination of the property was made August 22, 1955, by C. H. Roach, Geological Survey and M. R. Keyes, Bureau of Mines, for the purpose of determining the feasibility of the proposed exploration and the appraisal of the estimated costs and engineering aspects of the job. The field examiners were accompanied to the property by Chester M. F. Peters, representative of Allied Uranium Mines, Inc.

LOCATION, TOPOGRAPHY AND PERTINAL FEATURES

The property is located near the center of the west edge of the San Rafael Swell in Emery County, Utah, approximately 33 airline miles southwesterly from Green River, Utah. The specific area is Sec. 1, T. 23 S., R. 10 E., and Sec. 6, T. 23 S., R. 11 E., S.L.B. and M. (Fig. 1). The property may be reached by driving 4 miles west from Green River on U. S. Highway 50 to Utah State Highway 24, thence about 33 miles southwesterly on Highway 24 toward Emmerville to AEC access road to Temple Mountain and Muddy River, thence about 20 miles westerly on access road to Tan Sosy, and thence about 13 miles northerly on dirt road.

The claims include a mesa which rises abruptly more than 200 feet above the surrounding flat terrain. Vegetation is scarce and is comprised for the most part of pinion pines, junipers, and desert plants. The climate is arid. In summer the days are hot and nights chilly; winters are cold.

HISTORY AND PROSPECTING

The claims were located in 1954. Late in 1954 and early in 1955 the applicant conducted an exploratory program which included pits, sinking, drifting, and drilling. Although some uranium mineralization was encountered in this work, no ore was developed; and consequently no production has been made.

OWNERSHIP AND REPORT

Allied Uranium Mines, Inc. is a Delaware corporation whose address is: 708 Newhouse Building, Salt Lake City, Utah. Officers of the company are:

Michael H. Greene, President
80 Warren Street
New York City, N. Y.

Mary White, Secretary
Denrike Building
1616 Vermont Avenue, N. W.
Washington 5, D. C.

Selig Ginsburg, Treasurer
8125 Tenth Avenue
Silver Springs, Maryland.

The property is owned by Harry C. Lilas, Airport Chevron Station, Price, Utah, and Dangano Rigger, also of Price. A 99-year lease on the property, held by Carl R. Fordsner, Renhouse Building, Salt Lake City, Utah, and Edward Taylor has been assigned to Allied Uranium Mines, Inc. (fig. 2). That part of the property on which the exploration is proposed consists of the following claims located in Sec. 1, T. 23 S., R. 10 E., and Sec. 6, T. 23 S., R. 11 E., S.L.B. and M., Emery County, Utah, recorded in the Emery County Court House, Castle Dale, Utah:

Name of Claim	Entry No.	Recording Date	Book	Page
Sunlight No. 1	80313	March 16, 1954	J-18	289
Sunlight No. 2	80314	March 16, 1954	J-18	290
Sunlight No. 3	Missing	July 6, 1954	J-27	32
Sunlight No. 3-A	077824	August 16, 1954	J-34	483

GEOLOGY AND ORE DEPOSITS

Parts of the Moenkopi formation and the Moss Back sandstone member of the Chinle formation are the only rocks exposed in the area of the Sunlight claims (fig. 3). The rocks dip about 8 degrees to the northwest.

The Triassic Moenkopi formation consists of red and brown, thinly bedded siltstone and fine-grained sandstone. Only the upper part of this formation outcrops in the area, and the total thickness is not known. The Moenkopi formation is distinguished by its even-bedded units which are persistent for considerable distances.

The Moss Back sandstone member of the Chinle formation consists of interbedded lenses of fine- to coarse-grained sandstone, conglomerate, and siltstone. The Moss Back sandstone on the Sunlight claims is as

much as 80 feet thick, but this is probably not the total thickness since the top of the member has been removed by erosion over much of the property. Local variations in thickness are usually the result of paleocrevasse channels which have scouped down into the underlying Moenkopi formation. Most of the interbedded mudstones are gray in color. Locally, on the Sunlight claims, there is abundant carbonaceous material in the Moss Back sandstone and it is commonly mineralized.

There are no known ore deposits either on or near the Sunlight group of claims. Allied Uranium Mines, Inc., has driven two short adits into the Moss Back sandstone at locations suggesting a channel. Both adits were started to explore radioactive carbonaceous material which outcrops on the cliff face where the channel is exposed. Neither adit intersected mineralized sandstone, and the only mineralization observed on the property is in the form of small streaks of carbonaceous material concentrated along bedding planes.

The channel for which exploration is proposed is small and not well defined, and the chances of extending and delineating the channel under the proposed drilling area seem slight. There is no place on the property where uranium mineralization can be observed to have impregnated the sandstone. To the contrary, all observable mineralized material known to exist on the property is in the form of carbonaceous material, and appears to be low grade. Only one hole (No. 2), of the five holes drilled by the applicant, is reported to have penetrated mineralized sandstone. The bottom of the mineralization is reported at a depth of

17½ feet, and the bottom of the Moss Rock sandstone (top of Moenkopi formation) is reported at a depth of 19½ feet. Therefore, the bottom of the mineralized material in hole No. 2 appears to be about 17 feet above the base of the Moss Rock sandstone. The applicant believes that this drill hole has probably penetrated an ore body which is either localized in an extension of the channel that outcrops and has been explored by the two adits, or occurs in a channel which is a tributary to the outcropping channel. These conclusions are highly questionable because of the following observations:

1. Ore deposits in the San Rafael Swell are not usually found in small, ill-defined channels such as the one being considered.

2. Ore deposits in the San Rafael Swell are almost always localized in the very lowest topographic positions within the channel.

3. Experience has shown that, in the San Rafael Swell, small streaks of mineralized material occurring 15 to 25 feet stratigraphically above the base of the Moss Rock are usually mineralized carbonaceous trash pockets localized along bedding planes. Such occurrences seldom, if ever, develop into ore deposits.

4. No ore deposits are known to exist in the general area of the property.

In summary, there is no geologic evidence to assume that the small, ill-defined channel being explored will either extend for appreciable distances under the claims, or that it will contain economic deposits of uranium. There are, however, several geologic factors as mentioned above, which indicate that the channel will not be continuous or contain economic uranium deposits.

MINABLE ORE RESERVES

No ore reserves are known to exist on the property

PRESENT STATUS

Approximately 1 mile of access road has been constructed to workings and drill hole locations on the claims. Two adits showing a footage of approximately 90 feet and 40 feet, respectively, have been driven northerly into south face of the mesa rim on top of the Mancos shale, following the favorable mineralized sandstone bed. Seven holes were drilled on the mesa, north of the adits. There are no buildings on the property.

Mine labor is available at Green River and Price, Utah.

Materials, supplies and equipment necessary for mine operations are available from Price and Moab, Utah.

Water may be obtained from wells within 5 miles of the property.

Power can be supplied by gasoline or diesel engines.

PROJECT PROPOSALS

The applicant proposes to explore the claims for uranium by bulldozer rim stripping approximately 2,000 feet, diamond drilling 44 holes to an average depth of 200 feet, and drifting 500 feet. The approximate locations of 28 of the proposed drill holes are indicated on figure 2 by numbers R1 to R28. These holes are planned for the purpose of delineating the channel and discovery of ore deposits within the channel. The locations of the remaining 16 drill holes will be

determined by the geologic evidence derived from the first 22 holes. The drifting will be accomplished from the best location to cut any mineralization disclosed by the drilling program.

The exploratory work will be divided into two stages. Stage I will include rim stripping and drilling, and Stage II will include the drifting. The applicant's cost estimate is believed to be high. An estimate prepared by the consulting engineer is included below.

ESTIMATED COSTS OF PROPOSED EXPLORATION

Stage I

Independent contractor

Bulldozing
Access roads, 10 days at $96 per day ——— $960.00
Rim stripping, 10 days at $96 per day ——— 960.00
Total bulldozing cost ——— $1,920.00

Diamond drilling (44 holes, 200 feet each)
Plug bit drilling, 8,800 ft. at $1.75 per ft.- $14,080.00
Core drilling, 800 ft. at $4 per ft. ——— 3,200.00
Total drilling cost ——— 17,280.00

Surveying
44 drill holes at $10 per hole ——— 440.00

Personnel services

Supervision (includes geological and engineering service, accounting, reports, etc.), 5 months at $365 per month - 1,825.00

Operating materials and supplies

10 case boxes at $5 each ——— $ 50.00
100 survey stakes at $.10 each ——— 10.00
Total operating materials and supplies cost ——— 60.00

Operating equipment

Rental of radiometric probe	$ 60.00

Miscellaneous

44 assays for U_3O_8 at $3 each	132.00
Total cost of Stage I	$21,637.00

Stage II

Independent contractor

Drifting (includes labor, materials and equipment) 500 feet at $25 per foot	$12,500.00
Surveying, 500-foot drift	250.00

Personnel services

Supervision (includes geologic and engineering services, accounting, reports, etc.), 5 months at $365 per month -	1,825.00

Miscellaneous

31 determinations for U_3O_8 at $3 each	93.00
Total cost of Stage II	$14,668.00
Total cost of Stage I	21,637.00
Total cost of proposed project	$36,305.00
Government participation at 75 percent	$27,228.75

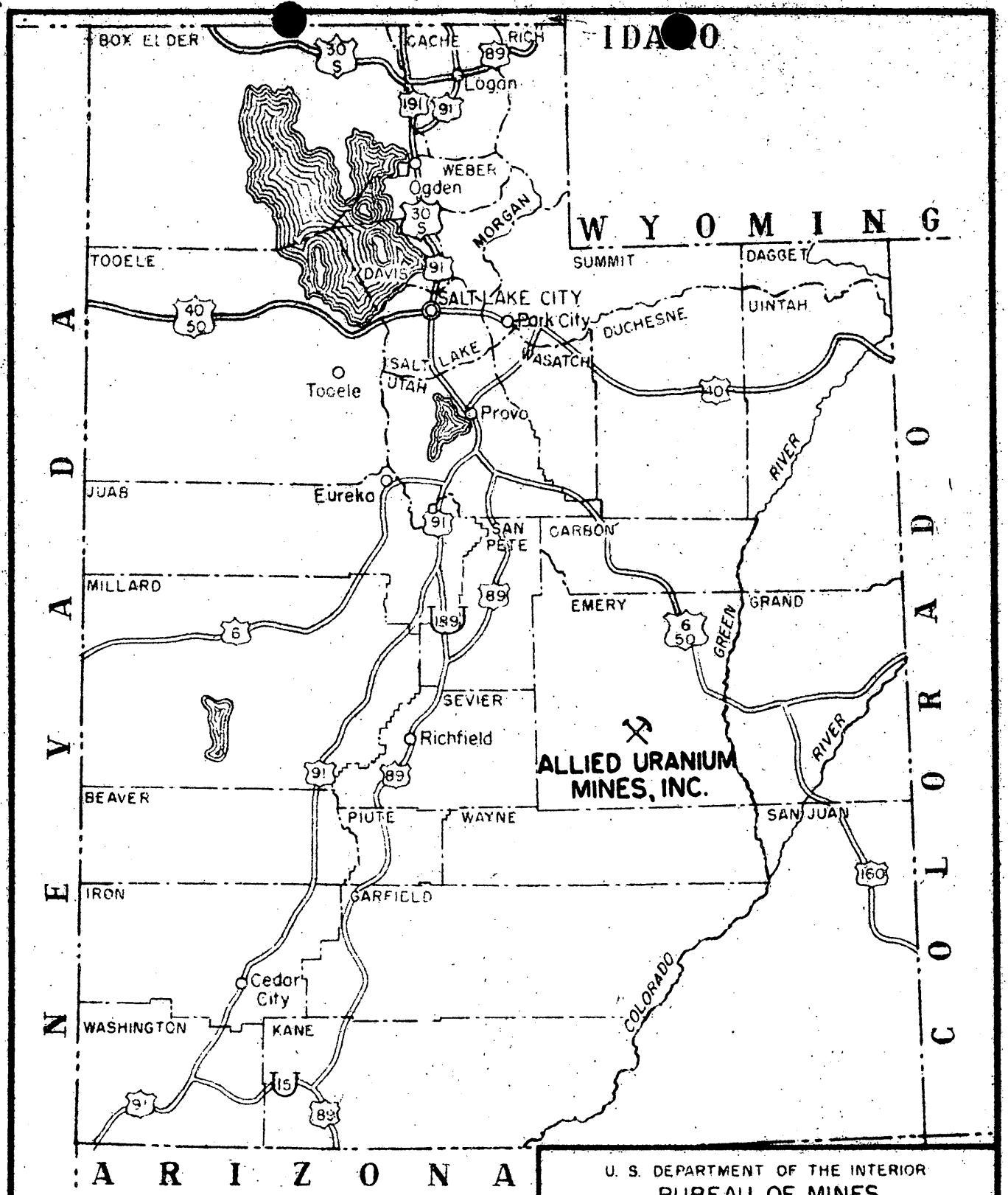
PROPOSED FINANCING

The applicant reports he is prepared to invest $9,076.25 in the proposed exploratory project, which is 25 percent of the estimated cost of $36,305, in accordance with the regulations on Government participation, as stated in Section 7, DMEA Order No. 1 Amended.

CONCLUSIONS AND RECOMMENDATIONS

No deposits of uranium ores are known to exist on or near the general area of the Sunlight claim. The exposed channel on the property is ill-defined and small, and the chances for subsurface extension of the channel are believed poor. All observed mineralization associated with the channel is found with carbonaceous material along bedding planes. Experience in the San Rafael Swell area has shown that such mineralized occurrences alone, rarely, if ever, indicate the presence of ore deposits. Some impregnation of the sandstone by uranium mineralization is believed necessary to indicate an ore deposit in the general area.

It is concluded that the proposed exploration on the Sunlight claims will not result in discovery of uranium ore bodies of significant size and grade. It is, therefore, recommended that the request for Government assistance in exploration be denied.



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

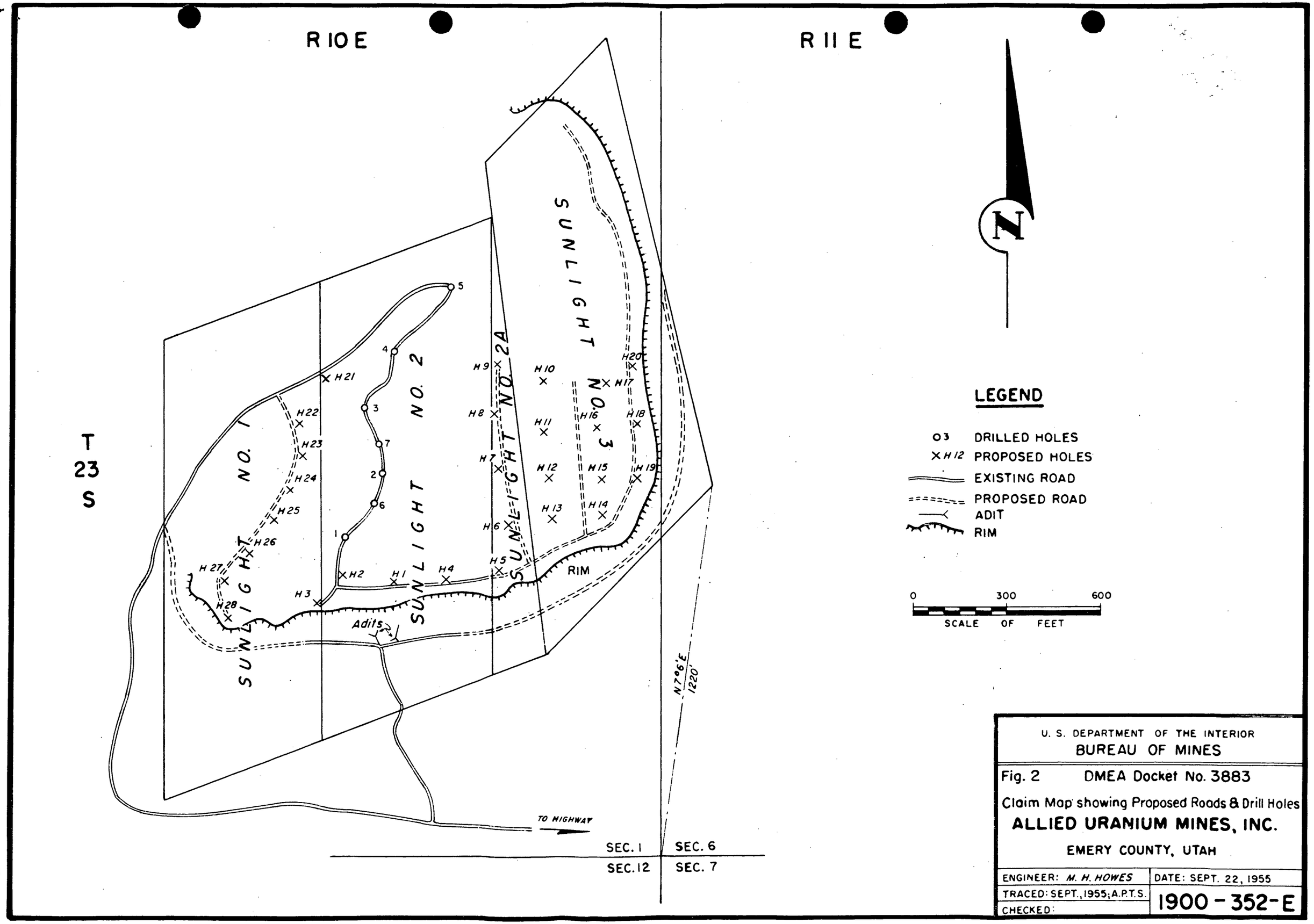
Fig. 1 DMEA Docket No. 3883

Location Map

ALLIED URANIUM MINES, INC.

EMERY COUNTY, UTAH

ENGINEER: *M. H. HOWES*	DATE: SEPT. 23, 1955
TRACED: SEPT., 1955; A.P.T.S.	1900 - 351 - E
CHECKED:	



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

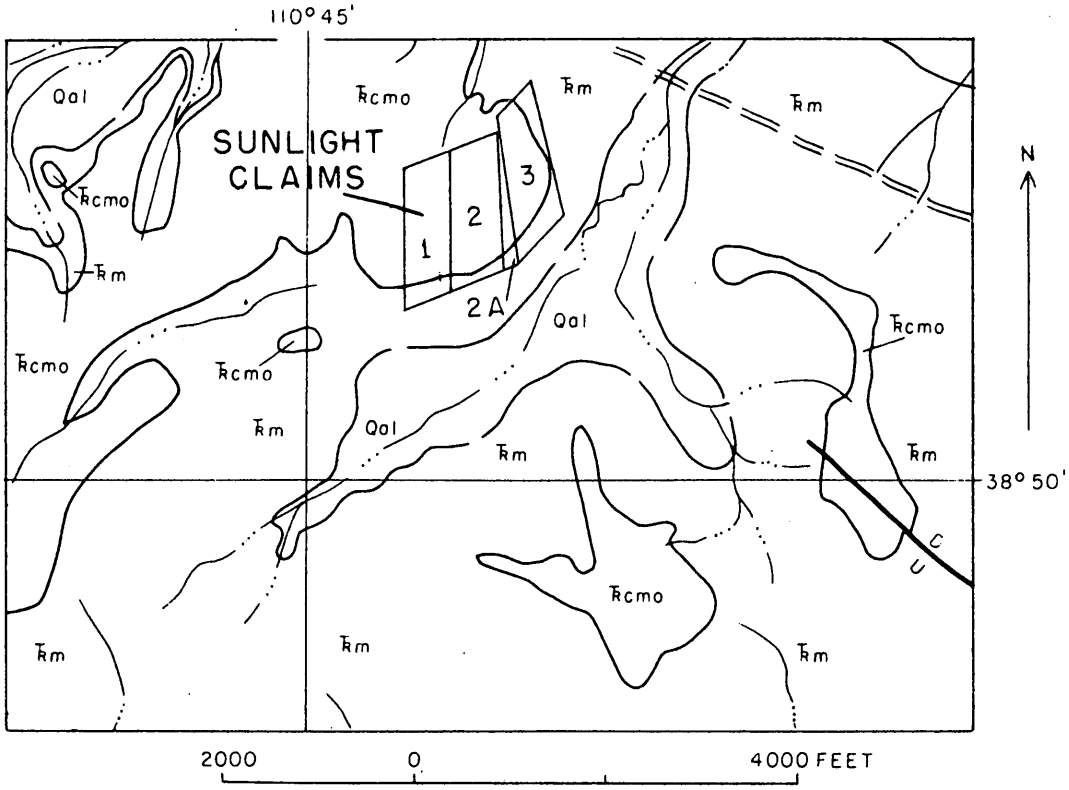
Fig. 2 DMEA Docket No. 3883

Claim Map showing Proposed Roads & Drill Holes

ALLIED URANIUM MINES, INC.

EMERY COUNTY, UTAH

ENGINEER: *M. H. HOWES*	DATE: SEPT. 22, 1955
TRACED: SEPT., 1955; A.P.T.S.	1900 - 352-E
CHECKED:	



EXPLANATION

Qal

QUATERNARY ALLUVIUM

Ꞧcmo

TRIASSIC MOSS BACK SANDSTONE MEMBER
OF CHINLE FORMATION

Ꞧm

TRIASSIC MOENKOPI FORMATION

D
U

FAULT
SHOWING RELATIVE MOVEMENT

Note: GEOLOGY FROM U.S. GEOLOGICAL SURVEY PHOTOGEOLOGIC QUADRANGLE MAPS, STINKING SPRING CREEK 6, AND 7.

Figure 3. GEOLOGIC MAP SHOWING LOCATION OF THE SUNLIGHT GROUP OF CLAIMS, EMERY COUNTY, UTAH

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Surname copy
A. G. Keating
Ellis
Martin
H Johnson

July 19, 1955

Mr. W. L. Traver
Executive Officer
DMEA Field Team, Region III
224 New Custom House Bldg.
Denver 2, Colorado

Re: Docket No. DMM 3883 (Uranium)
Allied Uranium Mines, Inc.
Sunlight Group
Emery County, Utah

Dear Mr. Traver:

The subject application is being referred to Region III Field Team for investigation, a field examination if warranted, and recommendation. A copy of the application was retained by your office.

Enclosed are copies of memoranda from Mr. J. E. Crawford, dated July 11, and Mr. M. E. Nelson, dated July 13, 1955, members of the Uranium Commodity Committee.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee (DHB)

Enclosures

APPROVED:

/s/ Robert W. Geehan (DHB)
Member, Bureau of Mines

Thor H. Kiilsgaard (DHB)
Member, Geological Survey

AGKeating:ai
7/20/55
cc to: Adm. Reading File
Operating Committee
Docket
Messrs. J. E. Crawford, Rm. 3641
T. H. Kiilsgaard, Rm. 5224
J. O. Hosted, Rm. 3210, GSA
Code 700
A. G. Keating

R.C.G.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Surname copy
A.G. Keating
Ellis
Kilogaard
Martin
Geehan
Jefferson

July 20, 1955

Mr. Selig Ginsburg, Treasurer
Allied Uranium Mines, Inc.
708 Newhouse Building
Salt Lake City, Utah

Re: Docket No. DMEA 3883 (Uranium)
Sunlight Claims
Emery County, Utah

Dear Mr. Ginsburg:

The application for assistance in exploring the subject property in Emery County, Utah, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to the Executive Officer of Region III at the following address:

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Custom House Bldg.
Denver 2, Colorado.

The Regional Office will communicate with you in regard to your project if additional information is required.

Sincerely yours,

E. O. Mittendorf

Administrator

AGKeating:ai
7/20/55
cc to: Admr. Reading File
Docket
Code 700
Mr. Keating
DMEA Field Team, Region III (2)

R.S.

7/14/55 gla

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
JUL 14 1955

July 13, 1955

Re: DMEA 3883
Allied Uranium
Mines, Inc.
Sunlight Group
Emery Co., Utah
$41,847.50 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Application.

The application pertains to a small group of claims (3 and a fraction) on the northwest side of the San Rafael Swell. The Lucky Strike Mine is 10 miles to the southwest and the Temple Mtn. mines are 10 miles to the east of south. The application of the San Rafael Mining Co. (3761) pertained to claims seven miles to the south of west. Otherwise we have no information on the immediate or general areas.

Diamond drilling and underground work have been done on the claims. As reported by Chester M. F. Peters, one hole, No. 2, cut 5 feet of material which, by probe count, ran 0.34% U_3O_8. Six holes were practically blanks. A slope tunnel showed counts, but no reserves are claimed.

The last report by Peters is dated April 29, 1955, at which time work had probably been suspended. If it has been resumed the Field may know of it, at any rate an evaluation of the results is needed.

Referral to the Field Team is indicated and so recommended.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
JUL 14 1955

July 13, 1955

Re: DMEA 3883
Allied Uranium
Mines, Inc.
Sunlight Group
Emery Co., Utah
$41,847.50 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Application.

The application pertains to a small group of claims (3 and a fraction) on the northwest side of the San Rafael Swell. The Lucky Strike Mine is 18 miles to the southwest and the Temple Mtn. mines are 10 miles to the east of south. The application of the San Rafael Mining Co. (3761) pertained to claims seven miles to the south of west. Otherwise we have no information on the immediate or general areas.

Diamond drilling and underground work have been done on the claims. As reported by Chester M. F. Peters, one hole, No. 2, cut 5 feet of material which, by probe count, ran 0.34% U_3O_8. Six holes were practically blanks. A slope tunnel showed results, but no reserves are claimed.

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Referral to the Field Team is indicated and so recommended.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-7/13/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
J. E. Crawford, 3641
J. O. Hosted, 3210

7/13/55 gla

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

RECEIVED
JUL 13 1955

July 11, 1955

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Application for assistance, DMEA Docket 3883, Allied Uranium Mines, Inc., Sunlight Claim Group, Emery County, Utah

I have reviewed the attached application for assistance, Allied Uranium Mines, Inc., DMEA Docket 3883; and I have discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

We suggest that the application be referred to the Field Team for examination and report, and that the Field Team be requested to consult with Ernest R. Gordon, Atomic Energy Commission, Grand Junction, Colorado.

John E. Crawford
John E. Crawford

Attachment

July 5, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region III.

DMEA-3883 Allied Uranium Mines, Inc.

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

July 5, 1955
Subject: DMEA-3883
Re: Exploration Assistance
Sunlight Claims

Allied Uranium Mines, Inc.
708 Newhouse Building
Salt Lake City, Utah

Gentlemen:

The receipt of your application dated April 22, 1955 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3883 and referred to the Rare and Miscellaneous Metals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
JUL - 1 1955

224 New Customhouse
Denver 2, Colorado

June 29, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Sunlight

Subject: Uranium Application of Allied Uranium Mines, Inc., Sunlite claims, Emery County, Utah

Enclosed are three copies of the subject application for a DMEA loan in the amount of $41,847.50.

A review of the application indicates that the applicant desires to delineate the ore body by drill holes on 25-foot centers or less, and then with DMEA funds to drive an adit to the ore body.

One copy of the application is being retained in our files.

W. M. Traver

W. M. Traver

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
JUL - 1 1955

224 New Customhouse
Denver 2, Colorado

June 29, 1955

Mr. Selig Ginsburg, Treasurer
Allied Uranium Mines, Inc.
708 Newhouse Building
Salt Lake City, Utah

Re: DMEA Application (Uranium)
(Sunlite claims), Emery
Emery County, Utah

Sunlight

Dear Mr. Ginsburg:

This will acknowledge receipt of your application for DMEA assistance on the Sunlite claims.

Your application has been forwarded to the Washington office, DMEA for review and appropriate action.

Very truly yours,

W. M. Traver

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

HMC:sr

cc Chairman, Op. Comm. (2)
Subject
Chron

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA
Rec'd
JUN 28 1955
BUREAU OF MINES
Denver, Colorado

Form Approved.
Budget Bureau No. 42-R1035.2.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

RECEIVED
JUL - 1 1955

Not to be filled in by applicant

Docket No. 3983
Metal or Mineral Uranium
Date Received 7-1-55
Estimated Cost $ 41,847.50
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Allied Chemical Corp., Inc.
708 Newhouse Bldg.,
Salt Lake City, Utah.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

(*b*) State any mine name by which the property is known. Sunlight claims

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore uranium

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 30 days and be completed within 7 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

[x] Money [ ] Use of equipment owned by you [x] Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated April 22, 1955

Allied Uranium Mines, Inc.
(Applicant)

By Selig Kimmey, Treas.

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

ALLIED URANIUM MINES, INC.
708 Newhouse Building
Salt Lake City, Utah

RECEIVED
JUL - 1 1955

(1 b) Incorporated in the State of Delaware.

(1 c) President, Michael H. Greene, 80 Warren St., New York City.

Secretary, Marc White, Denrike Bldg., 1010 Vermont Ave., N.W., Washington 5, D.C.

Treasurer, Selig Ginsburg, 8425 10th Ave., Silver Springs, Maryland.

(1 d) Not applicable.

(3 a) 3 lode mining claims and a fraction located in the southeast quarter section of Section One, Township 23 South, Range 10 East, Salt Lake Meridian, Emery County, Utah. - (see attached map).

(3 b) Sunlight Claims.

(3 c) The company has a 99 year lease on property by assignment through Carl R. Ferderer and Edward P. Taylor.

(3 d) Copy of agreements attached.

(3 e) Not applicable.

(3 f) Sunlight One. Located March 7, 1954. Recorded March 16, 1954, Book J-18, pg. 289, Entry 88013, Emery County.
Sunlight Two. Recorded March 16, 1954, Book J-18, pg. 290, Entry 88014, Emery County.
Sunlight Three. Recorded July 6, 1954, Book J-27, pg. 32, Emery County.
Sunlight Two-A. Fraction between Sunlight 2 and 3, August 16, 1954, Book J-34, pg. 483, Entry 097824, Emery County.

(4 a) See attached engineer's report and maps. The operations and work to date have been paid for by Allied Uranium Mines, and the approximate sums expended amounted to $7,300. The mine workings are open for inspection, the drill holes may or may not be open for probing. The recovered cores are available for inspection.

(4 b) There has been no production to date and there are no known ore reserves.

(4 c) See attached geologic reports. It is believed that there is sufficient mineralization present on the property to warrant farther exploration as recommended in the attached reports.

(4 d) Access drilling roads have been constructed on the property sufficient for part of the drilling program. A few additional roads may have to be constructed as detailed under (6 f). Good county roads connect the property with main state and national road systems within the state. The nearest ore buying station is at Green River, a distance of 70 miles by county maintained roads.

The nearest supply points of consequence would be Price, a distance of 82 miles, and Green River, a distance of 70 miles. It would be most satisfactory to live in trailers on the claims as has been done during past operations.

(4 e) Sufficient labor is available, drilling would be done on contract. Materials, supplies, equipment and power would be furnished by the contractors. Water is available from wells in the vicinity not exceeding 5 miles distance from the operations.

(5 a) We would be exploring for uranium.

(5 b) See attached report dated January 18, 1955 and the attached supplement.

(5 c) The work will start within 30 days and be completed within 7 months from date of an exploration contract.

(5 d) Three qualified geologists are on the board of directors: Mr. S. R. Mahoney, Mr. J. J. Beeson and Dr. George Hansen. All of these men are and have been consulting geologists for some years. The field work to date and in the immediate future on this group will be supervised by C.M.F. Peters, a consulting geologist and mining engineer with 21 years of practical experience.

The drilling will be done by a competent contract driller, Mr. J. L. MacBride, owner of Mac's Exploration Company

First Phase Exploration

(6 a) Independent contracts

Bulldozing, 10 days @ $80 per day, access roads. .	$ 800
Bulldozing, 10 days @$80 per day, rim stripping .	800
Moving on and off job	300
Total	$ 1,900

Drilling 44 holes @ 200 feet each -	
8,000 feet of plug bit drilling @ $1.75 per ft. .	$14,000
800 feet core drilling @ $4.00 per ft..	3,200
Total	$17,200

(6 b) Surveying of drill holes

2 men, 16 hrs in field, $8.50 per hr	$ 136
Jeep on highway, 8¢ per mile, 350 miles	28
Jeep on job, 12¢ per mile, 200 miles	24
Office work, $5.00 per hr, 24 hours	120
Travel time, 1 day	68
Miscellaneous	24
Meals, lodging and other expenses	50
Total	$ 450

Consulting geological and engineering service

5 trips of 2 days each, 10 days @ $100.	$ 1,000
Office work, 10 days @ $50.	500
Transportation, 5 trips @ 10¢ per mile, 450 miles each	225
Per diem, $10 per day, 10 days.	100
Total	$ 1,825

(6 c) All material and supplies for drilling and dozing to be to the contractor's account, except following items:

Drill core boxes, 10 @ $5.00.	$ 50
Survey stakes, 100 @ 10¢ each	10
Miscellaneous	100
Total	$ 160

(6d) Probe rental . . . . . $ 60

(6 e) None

(6 f) Access roads accounted for under (6a) bulldozing contract.

(6 g)	Assays, 100 @ $3.00.	$ 300
	Accounting @ $30 per month, 4 months	120
	Miscellaneous items.	180
	Total	$ 600

Payroll taxes, workmen's compensation, insurance, to be paid by individual contractors.

(6 h)	Contingencies	$ 750

Total for first phase of exploration	$22,945.00
Company's share @ 25%.	5,736.25
Government's share @ 75%	17,208.75

Second Phase Exploration

(6 a)	500 feet contract tunneling @ $30 per foot .	$15,000

(6 b) Surveying at rates itemized in first phase

1 day in field	$ 68
1 day travel time.	68
1 day office time.	40
Travel costs, miscellaneous.	64
Total	$ 240

Consulting geologist and engineering service

5 trips of 2 days each, 10 days @ $100 . . .	$ 1,000
10 days' office work @ $50	500
Transportation, 5 trips @ 10¢ per mile, 450 miles each trip	225
Per diem, $10 for ten days	100
Total	$ 1,825

(6 c)	500 feet of 12 lb track, 2 tons @ $150 . . .	$ 300
	350 pieces of track tie @ 25¢.	87.50
	Total	$ 387.50

(6 d) All equipment furnished by contractor

(6 e) None

(6 f) None

(6 g)	Assays, 100 @ $3.00.	$ 300
	Accounting, 5 months @ $30	150
	Total	$ 450

Insurance, payroll taxes, etc., to be carried by contractor.

(6 h)	Contingencies	$ 1,000

Total for second phase of exploration. . . .	$18,902.50
Company's share @ 25%.	$ 4,725.63
Government's share @ 75%	$14,176.87

Total costs of both projects	$41,847.50
Company's share @ 25%.	$10,461.87
Government's share @ 75%	$31,385.63

(7 a) Yes, see attached agreements and subordination agreements of claim owners and operators.

(7 b) Cash.

CHESTER M. F. PETERS
MINING GEOLOGIST AND ENGINEER
P. O. BOX 2262
SALT LAKE CITY 10, UTAH

November 12, 1954

Mr. Carl Ferderer
Newhouse Building
Salt Lake City, Utah

Dear Mr. Ferderer:

Below are the suggestions I have to make on the Sunlight claim group which we visited November 10th.

The mineralization is very weak but the favorable part is that where carbonaceous material is found in your beds it is mineralized. However, carbon is scarce and for the most part lacking in the channel structure which is now exposed.

The bulldozing which has been done to date along the face of the rim has exposed a definite shallow channel but the deepest part of the channel occurs directly behind the center of the "Y" where the access road divides at the rim face and it is still not exposed. This area should be cleaned off to expose the face of the channel so that it can be inspected and the thickness measured and checked for mineralization.

The present tunnels have been put into the south side of the main channel and they have not exposed any favorable mineralization. If either of these should be extended as a result of the suggested drilling, preference should be given to the tunnel trending to the north as this would, to my opinion, approximately crosscut the main part of the channel. However, I do not recommend farther tunneling at this time until the drilling has been completed as the channel does not show signs of any commercial mineralization and it is not particularly favorable.

The first hole drilled as indicated on the sketch should be drilled about 100 feet back from the rim where I indicated when on the property. This should cut the channel approximately at the center of the apparent structure. Hole 2 would cut the south side of the channel where it begins to thin. If either of these show good mineralization, additional holes should be drilled on 25 foot centers north and south of them.

The next line of holes should be drilled about 50 feet to the west of the first line on 50 foot spacing. Hole 4 should strike about the center and holes 3 and 5 should land about the outside of the main deep channel section and define it. Again, if mineral is encountered 25 foot spacing should be given additional holes. Hole 6 should land in the middle of the central channel about 100 feet farther west along the center line which should be more clearly defined by the preceding work. If none of these holes contain commercial grade ore the property should be abandoned, as the possibilities of finding ore would not justify farther expenditures.

Very truly yours,

Chester M. F. Peters

CHESTER M. F. PETERS
MINING GEOLOGIST AND ENGINEER
P. O. BOX 2262
SALT LAKE CITY 10, UTAH

January 18, 1955

RECEIVED
JUL - 1 1955

Mr. Carl Forderer
Newhouse Building
Salt Lake City, Utah

Dear Mr. Forderer;

I left Green River, where I had stayed overnight, on Thursday morning. I met Mr. McBride with a party on the road to the mine. I got stuck once on the way in to the mine, and we arrived at the turnoff to the mine about noon.

We had to break trail through the snow to the mine from the main road and it took considerable time. We finally arrived on the road where the drill holes are located around 2:30 P.M. It was very cold and icy.

We probed two holes and on the third the probe stopped working. I checked some of the cores but as nothing farther could be done, we decided to go to Green River for the night as the crew were on their way to Grand Junction for the weekend. We left the property about 4:30 and arrived in Green River after dark. Dick Prodzinski stayed with me to help me the following day.

The next morning we drove back to the property and arrived there about 10:00. I experimented with the rented geiger and probe again and found that some of the batteries were burned out. I luckily had some of the type with me so I replaced them and we were able to probe the third hole. Number four hole was blocked by a cave and although Mr. Prodzinski dug in the ice on the road where hole number five should have been for more than an hour, we could not find a trace of it. I then surveyed the holes and road to tie them in with the tunnels. We found two unmarked corners and shot them in with stadia in the hopes that we could identify them later.

I drove back to Salt Lake City, arriving here about 11:00 P.M.

I am attaching a list of expenses for the trip and my charges, along with a report on the status of the work to date.

Very truly yours,

Chester M. F. Peters

Chester M. F. Peters

CHESTER M. F. PETERS
MINING GEOLOGIST AND ENGINEER
P. O. BOX 2262
SALT LAKE CITY 10, UTAH

SUNLIGHT CLAIMS

EMERY COUNTY, UTAH

- - - - - - - - - - - - - - -

DRILLING

Five holes have been drilled to varying depths and the location and details are shown on the accompanying map.

Three of the holes were probed, hole #4 was caved at about 50 feet from the top, hole #5 could not be located as it was buried under an ice cover in the road. Hole #1 and #3 were barren, hole #2 had the following results:

Barren from 0 to 168 feet			
@ 168	feet	count	0.10
@ 169	"	"	0.15
@ 170	"	"	0.50
@ 171	"	"	0.45
@ 172	"	"	0.35
@ 173	"	"	0.50
@ 174	"	"	0.05

The above readings are direct from the Universal geiger counter which was set on the scale to read up to 1%. Before running the probe in the hole the geiger was calibrated to read 0.40% plus 0.05% as background count without the probe. The probe was then cut in and run down the hole about 4 feet and it read 0.05% as background. The count cut off very sharply above and below the mineralized zone.

The contact with the Moenkopi red beds occurred at 191 feet in this hole. The core above this consisted mainly of fine sandstones to siltstones with occasional beds of gray shale. There was gray shale and very fine siltstone both above and below the mineralized zone. There was about ten inches of core recovered in the ten feet containing the mineralized zone between 164 and 174 feet and this did not count. The ore zone is soft and was entirely lost in the cuttings. A slight count could be found with a geiger in spots on the cuttings pile.

The location of this hole is directly north of tunnel 2, which is being driven due north. The tunnel itself is in the thicker part of the channel and the count

increases from 0.10% at the mouth to 0.25% background at the face. The face contains several thin coaly seams in sandstone containing some clay nodules, but nowhere does there seem to be more than a background count. The fact that the count increases as the tunnel advances is encouraging. It is now 40 feet deep and going down dip at about 5 degrees. In comparing the elevation of the contact at the exposed rim with that in the drill holes down dip, the average dip is a little over 11 degrees.

All cores from the various holes were checked with a geiger and there was no sign of mineralization in any of them.

RECOMMENDATIONS

From cursory observations during my first trip to the property, the channel trend appeared to be nearly due west in order to line up with a channel trending across the erosion gully to the west of the mesa on which the claims are located. This assumption is still possible, as there are no holes to the west or northwest except hole #1. This is barren and could be located off the edge of the main channel. (See sketch lines A-A).

It is improbable that any but a curved mineralized channel could connect hole #2 and the tunnel in the main channel. (Lines B-B). Hole #2 may be an isolated blob of mineral such as a log, or it may represent a subsidiary channel. (Lines C-C). The relative location of the mineralized zone does not check with the location of the channel in the rim face on which the tunnels are driven. It is possible that the obvious Moenkopi contact may be in error due to bleaching and should be higher in the hole, as there is shale both above and below the mineralized zone, as it is on the exposed rim face.

Additional holes should be drilled on each side of hole #2 at intervals of 25 feet. Should no mineral be found on one side or the other or both, then a hole half way between should be drilled until the mineralization is definitely outlined. Should mineral be found in one or both of the first holes, then additional holes should be drilled farther out until the mineral borders are reached.

When the mineralized area is defined by the above drilling, then holes should be put down as indicated on the sketch along the existing roads: One at the highest part of the road near the junction; one due north of tunnel 2 which would be about 100 feet ahead of the

tunnel face. The information from these two holes should indicate where farther drilling should be attempted. Should nothing be found, then holes H 3 and H 4 should be drilled; if nothing is found, then H 5. These holes are about 150 feet apart.

The information obtained by drilling out from Hole 2 should indicate the width of channel to be expected and this would govern the interval for exploring the area between it and the rim.

Should mineral be found in any of the H series of holes, then the same procedure should be followed to explore the channel width as was done for hole 2. Assuming that mineral is found in the new holes, then a trend of the mineralized channel can be ascertained and future drilling plotted to extend it.

Should a block of ore be developed, then the decision of a tunnel location can be made. An extension of tunnel 2 for exploration purposes can be justified by the increase in background count.

A dust collector should be rigged so that the cuttings can be saved for assay should a mineralized zone be cut in the future. Each interval of ten feet should be saved until either the core is obtained and it is barren, or the hole probed and determined barren.

In laying out the cores for record, small wooden blocks marked in pencil should be inserted at proper intervals with the core. These will stand rain and moisture better than paper. It is all right to remove the cores from the boxes and lay them out on the ground as is done at present if the depth records are put with them as described above.

Chester M. F. Peters

Chester M. F. Peters
Consulting Geologist

January 18, 1955.

ALLIED URANIUM MINES, INC.
708 Newhouse Bldg., Salt Lake City, Utah

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JUL - 1 1955

(5 b) Supplemental Report to Attached Reports.

Plate (A) shows approximate location of 28 proposed holes which are planned to be put in first. However, the exact location and spacing of the holes will depend on the results of the drilled holes as the work progresses. The numbering is the tentative order of drilling which may be changed depending on results obtained.

Additional rim stripping is contemplated as indicated on the map, to see if evidences of other channels can be found, at places where more than normal background count is found. The exact location of the access roads will depend on topography and what is needed to advance the drill program as it progresses.

It is estimated that the average hole will not exceed 200 feet in depth, so the program is set up for 44 holes. It is believed that 10% of a hole will be cored while the balance will be plug drilled.

The prospect tunnel will be driven in from the best location to cut any mineralization disclosed by the drill program. It is anticipated that the first phase of drilling and the second phase exploration by tunneling will overlap somewhat, as drilling will take about five months with one rig, and tunneling about five months with one crew. This work will be done by contract miners who will furnish their own equipment and supplies. Thus the company will have no investment in machinery or equipment.

Should developments from the above program prove that farther work on the ground is unjustified at any time, then the program will be terminated at that point.

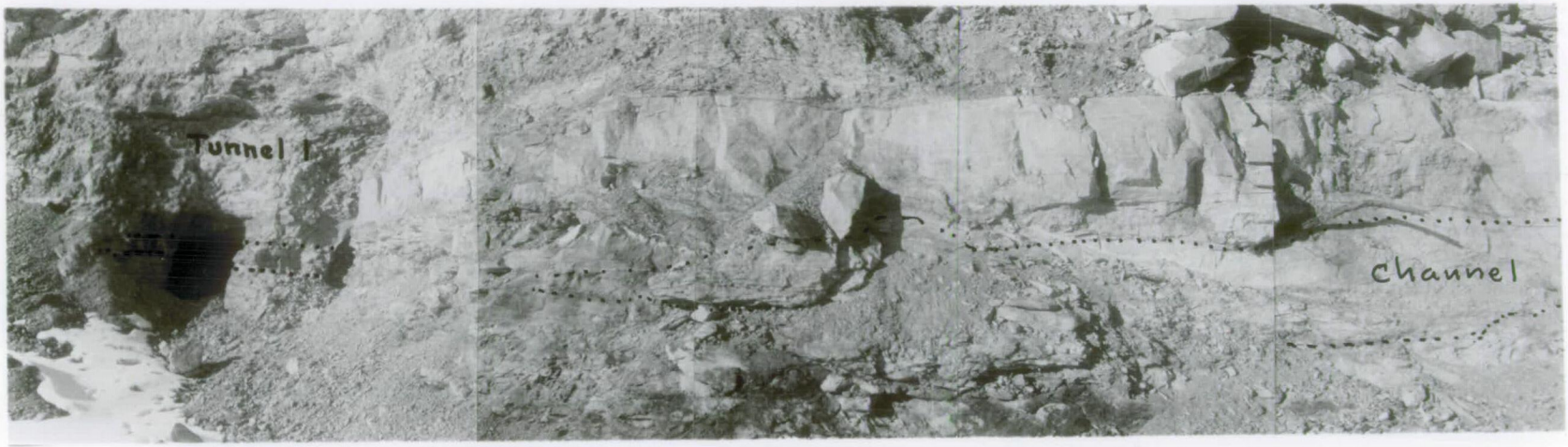
Holes 6 and 7 were recently drilled and both had mineralization in them, but have not been checked by the geologist as yet. Thus, holes 1 through 9 as proposed may give more clear indications as to a channel trend. The location of farther holes would determine in more detail any indications found.

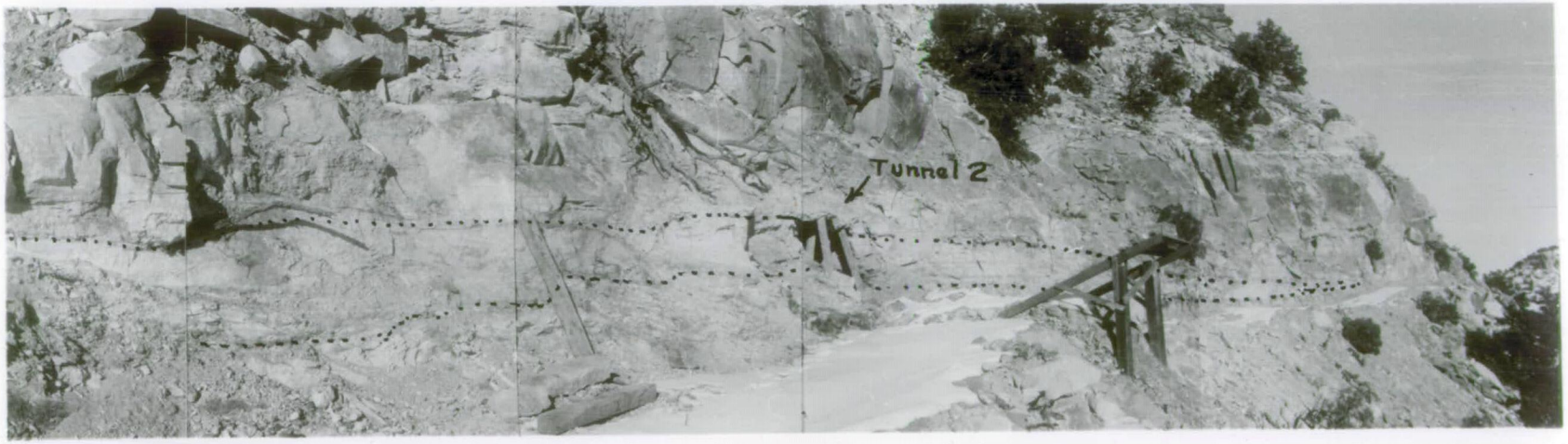
Chester M. F. Peters
Mining geologist and engineer

April 29, 1955

Looking North

East from B


Tunnel 1
Channel


Tunnel 2

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ASSIGNMENT AGREEMENT

This Agreement made this 30th day of September, 1954, by and between MICHAEL H. GREENE and TILLIE M. GREENE, his wife, hereinafter sometimes referred to by their last name, and the ALLIED URANIUM MINES, INC., a Delaware corporation, hereinafter sometimes called "COMPANY", and EDWARD P. TAYLOR and CARL R. FERDERER, hereinafter sometimes referred to by their last names,

W I T N E S S E T H:

WHEREAS, EDWARD P. TAYLOR and CARL R. FERDERER assigned to MICHAEL H. GREENE on the 1st day of July, 1954, a right to acquire a Lease Agreement with HARRY C. LILES and IMOGENE RIPPEY with respect to property described more particularly hereinafter; and

WHEREAS, MICHAEL H. GREENE and TILLIE M. GREENE, his wife, desire to transfer and assign all their interest in said right to the ALLIED URANIUM MINES, INC., a Delaware corporation; and

WHEREAS, ALLIED URANIUM MINES, INC. desires to accept the aforesaid right to be bound by the terms and conditions under the aforesaid agreement; and

WHEREAS, EDWARD P. TAYLOR and CARL R. FERDERER desire to release MICHAEL H. GREENE and his wife, TILLIE M. GREENE, from any liability by reason of said assignment;

IT IS, THEREFORE, AGREED:

In consideration of the sum of TEN DOLLARS ($10.00) and other good and valuable consideration, receipt of which is hereby acknowledged, the parties agree as follows:

1. <u>On the part of the GREENES.</u>

A. The GREENES hereby transfer and assign all their rights incident and pursuant to an Assignment Agreement with CARL R. FERDERER and EDWARD P. TAYLOR dated the 1st day of July, 1954, with

4

respect to acquiring a lease on the following described property:

Name of Claim	Entry number and page number of entries made in County Court House records, Castle Dale, Utah
San Rafell (No number)	91602
San Rafell #1	91603
San Rafell #2	91604
San Rafell #3	91605
Big Red #1	91606
Big Red #2	91607
Big Red #3	91608
Big Red #4	91609
Lone Wolf #1	87273 Page No. 211
Lone Wolf #2	87274
Lone Wolf #3	87275 Page No. 213
Lone Wolf #4	(entry number missing)
Lone Wolf #5	87658 Page No. 569
Queen Sheba #1	87657 Page No. 568
Queen Sheba #2	(entry number missing) Page No. 212
Queen Sheba #3	(entry number missing)
Sunset #1	89221 Page No. 170
Sunset #2	89222 Page No. 171
Sunset #3	89223 Page No. 172
Sun Light #1	88013 Page No. 289
Sun Light #2	88014 Page No. 290
Sun Light #3	(entry number missing)

Note: Sunset Claims Nos. 1, 2 and 3 are situated within Township 22 S., Range 10 E., SLM, Emery County, Utah. All other claims listed above are situated in Township 23 S., Range 10 E., SLM Emery County, Utah.

The foregoing shall also include all fractional claims or tracts resulting from surveys and/or amended notices of location.

B. The GREENES further agree to execute whatever additional documents may be necessary to effectuate the intent and purposes of this assignment agreement.

2. On the part of the COMPANY.

The ALLIED URANIUM MINES, INC. accepts the assignment from the GREENES and agrees to be bound by all the terms and conditions thereof in connection with the lease of the aforedescribed property.

3. On the part of TAYLOR and FERDERER.

EDWARD P. TAYLOR and CARL R. FERDERER hereby release and discharge the GREENES from all and any further liability in connection with the Assignment Agreement dated July 1, 1954, relating to the aforedescribed mineral lease and they agree and hereby do accept and substitute the ALLIED URANIUM MINES, INC., a Delaware corporation, as a successor to all the right, title and interest of MICHAEL H. GREENE in the Assignment aforesaid.

4. Miscellaneous.

The parties agree that this agreement shall be binding on their heirs, executors and assigns.

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed and sealed the day and year first above written.

Michael H Greene (SEAL)
MICHAEL H. GREENE

Tillie M. Greene (SEAL)
TILLIE M. GREENE

Rose De Liberg
Witnesses to the signatures of Michael H. Greene and Tillie M. Greene, his wife.

Edward P. Taylor (SEAL)
EDWARD P. TAYLOR

Ben Smedley
Witnesses to the signature of Edward P. Taylor

Carl R. Ferderer (SEAL)
CARL R. FERDERER

Ben Smedley
Witnesses to the signature of Carl R. Ferderer

ALLIED URANIUM MINES, INC.

ATTEST:

By- Selig Sundling
Treasurer

Secretary

(SEAL)

STATE OF UTAH)
COUNTY OF Salt Lake)

I hereby certify that on the 25 day of September, 1954, before me, a Notary Public in and for said county and state, personally appeared EDWARD P. TAYLOR and CARL R. FERDERER, being personally well known to me as two of the persons who executed the foregoing agreement, and acknowledged the same to be their acts and deeds.

IN WITNESS WHEREOF, I have hereunto affixed my hand and official seal this 25 day of September, 1954.

Ben Smedley
Notary Public

My Commission Expires:

STATE OF NEW YORK)
)
COUNTY OF)

I hereby certify that on the 13 day of September, 1954, before me, a Notary Public in and for said county and state, personally appeared MICHAEL H. GREENE and TILLIE M. GREENE, his wife, being personally well known to me as two of the persons who executed the foregoing agreement, and acknowledged the same to be their acts and deeds.

IN WITNESS WHEREOF, I have hereunto affixed my hand and official seal this 13 day of September, 1954.

Rose De Libero
Notary Public

My Commission Expires:

ROSE DE LIBERO
NOTARY PUBLIC, STATE OF NEW YORK
No. 52-0967150
Qualified in Suffolk County
Commission Expires March 30, 1955

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ASSIGNMENT

WHEREAS on the 16th day of June 1954 Harry C. Liles and Imogene Rippey entered into an Option Agreement with a right to acquire a Lease Agreement with Carl R. Ferderer and Edward Taylor, hereinafter called "Assignor", and

WHEREAS Michael H. Greene, 80 Warren Street, New York City, N. Y. hereinafter called "Assignee", is desirous of obtaining said Option Agreement and the right to the said Lease Agreement,

NOW THEREFORE, for and in consideration of the sum of Sixteen Thousand Five Hundred and no/100 Dollars ($16,500.00), to be paid strictly in accordance with the following terms by check made payable to and delivered to Assignor, to-wit: Eight Thousand Two Hundred Fifty and no/100 Dollars ($8,250.00) at the time of the execution of this assignment but in any event no later than July 6, 1954, and Eight Thousand Two Hundred Fifty and no/100 Dollars ($8,250.00) additional to be paid either within 15 days after completion of survey and abstract opinion on the mining claims covered by said Option and Lease Agreements, or on or before August 15, 1954, whichever is the later date, the Assignor hereby sells, assigns, transfers and sets over all of their rights, title and interest in and to that certain Option Agreement dated June 16, 1954, and upon exercising the said Option then to include all rights, title and interest in and to the Lease Agreement hereinbefore referred to, to Michael H. Greene, whose address is 80 Warren Street, New York City, N. Y., subject to the following terms and conditions:

1. There is to be reserved to the Assignor a two percent (2%) overriding royalty on any and all of the mining claims covered by said Option Agreement and said Lease Agreement, if said Option is exercised by Assignee herein, subject to the same terms and conditions as the royalty reservation made in the Lease Agreement attached to the said Option Agreement.

2. It is mutually agreed and understood that the payment of the Eight Thousand Two Hundred Fifty Dollars ($8,250.00) last abovesaid, either within 15 days after completion of survey and abstract opinion or on or before August 15, 1954, whichever is later, shall act as a condition subsequent in that if the money is not paid in accordance with the terms and conditions hereof then the title shall immediately revest

in the Assignor and this Assignment shall become null and void and of no effect whatsoever, and any and all monies paid hereto shall be retained by the Assignor as necessary expense money in procuring the option and the rental for the right of investigation of said claims. The parties hereto mutually agree that said sum is and shall be the exact amount due said Assignor. Said sum is in addition to any sums advanced or to be advanced by Assignee or his representative to Assignor to cover Assignor's expenses and commitments in connection with geological reports, assay reports, abstracts, surveys, reproduction work, travel and legal fees involving said claims.

3. It is hereby understood and agreed that the said sum of Sixteen Thousand Five Hundred Dollars ($16,500.00) is computed on the basis of Seven Hundred Fifty Dollars ($750.00) per claim, and that in the event title to any of said claims should upon survey and abstract examination prove not to be valid in the name of Claimholders Harry C. Liles and or Imogene Rippey so as to preclude Assignee from obtaining title and possession thereof for mining purposes in accordance with this assignment and said Option Agreement and attached Lease Agreement, then in that event Assignee is not obligated to pay any sums as to those claims; provided further that any and all sums advanced or paid by Assignee to Assignor for any claims that prove to be invalid as aforesaid shall be reimbursed to Assignee by Assignor.

4. Assignee agrees and covenants with Assignor that should the claims covered by this Assignment be placed in a corporation, already formed or to be formed, that Assignee will grant or cause to be granted to Assignor the ownership of two percent of the total capital stock to be issued or distributed to founders of said corporation and to subscribers of said stock prior to public offering, and this covenant shall be and it is hereby agreed that this covenant will run with the lease aforesaid and be a condition attaching to said lease.

5. Assignor hereby grants unto Assignee the right to assign or transfer the interest herein to any person or corporation, subject to the conditions hereof.

6. The Assignee herein agrees to execute any and allpapers necessary to effect the reservation of the royalty and of the transfer and revestment of the title in accordance with the terms of this Assignment, if

necessary, and the Assignee further agrees to abide by all of the terms of the Lease Agreement and to hold the undersigned Assignor harmless from any and all liability in accordance with the terms of said Lease Agreement.

7. Assignor agree to execute any and all documents necessary to carry out the terms and intent of this Agreement upon request by Assignee whether herewith or that may become necessary in the future.

Dated this 1st day of July 1954.

Earl R. Gerdgrer

Edward Taylor

Assignor

Michael H. Irene

Assignee

OPTION AGREEMENT

WHEREAS, Harry C. Liles and Imogene Rippey, hereinafter referred to as "Claimholders", are the legal owners and or possessors of certain mining claims in the San Rafael Swell area and in the vicinity north of the Temple Mountain Mining District, Emery County, Utah, and more particularly described and listed on Exhibit "B" attached hereto and made a part hereof.

WHEREAS, Carl R. Ferderer and Edward Taylor, of Salt Lake City, Utah, hereinafter called "Purchasers" are interested in acquiring an option to lease said mining claims.

NOW, THEREFORE, for and in consideration of the sum of Two Hundred Dollars ($200.00) and other valuable consideration, the receipt whereof is hereby acknowledged, the Claimholders do hereby give and grant unto the Purchasers, or their assigns, the sole and exclusive option to acquire the above mentioned claims. Said option to be exercised by Purchasers depositing in the mail, postage prepaid on or before Twenty-One (21) days from the date hereof, written notice to Harry C. Liles, care of Airport Chevron Station, Price, Utah, who shall act as agent for the Claimholders in receiving notice of Purchasers' desire to exercise the option on said claims, and by depositing in escrow or tendering payment of monies to claimholder as follows: The sum of Six Hundred Fifty ($650) Dollars per claim for a lease on each and all of the claims listed in Exhibit "B", attached hereto, payable on the basis of Three Hundred Twenty-Five Dollars ($325.00) down per claim at the time of exercise of this option and the balance of $325.00 per claim to be paid within 15 days after completion of survey work and rendering of legal abstract opinion on the said claims, subject to the provisions hereof.

Claimholders further agree that payment by Purchaser of the sum of $650.00 per claim is conditioned upon valid and unencumbered title ownership to each said claim in the name of Claimholders, and provided that in the event title to any of said claims should prove upon examination and survey to be defective or invalid then as to those claims no payment whatsoever shall be made to Claimholder; provided further that any sum or sums paid to Claimholders by Purchasers for claims having invalid title shall be reimbursed to Purchaser by Claimholders. Said lease to be in the form of Exhibit "A", attached hereto, except as to any lands already covered by a Federal oil and gas lease, and as to those, a lease conforming to the AEC lease will be used.

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Claimholders agree that they will file an application and all papers necessary to procure an Atomic Energy Commission Lease in accordance with Circular 7, on any and all lands in said claims that are covered by Federal oil and gas leases upon demand of purchasers or their assigns, and that they will, upon demand, assign said lease or leases to the Purchasers herein, or their assigns, reserving only the royalty indicated on the other leases.

Claimholders further agree to give to Purchasers or their assigns, an irrevocable power of attorney to act in the name of Claimholders, individually and collectively, to file any and all forms necessary to perfect title on any and all of these claims with the Atomic Energy Commission.

Claimholders further agree that upon the exercising of the option by the Purchasers or their assigns they will execute and file any and all papers necessary to the perfection of said claims under existing law or any future laws that may be enacted regulating the filing of claims for the exploration and production of uranium and allied minerals.

Claimholders further agree upon the exercising of the option by Purchasers or their assigns that they will assign, sell or transfer any and all rights and benefits to which they may be entitled under the Atomic Energy Commission Act insofar as they relate to these particular claims, including but not limited to shipment rights, bonus money and privileges to sell ore.

Claimholders agree with the Purchasers that this option can be sold, transferred and assigned without the consent of the Claimholders herein, it being realized and understood that the Purchasers may transfer this to an operator to develop the said property.

IN WITNESS WHEREOF, the parties hereunto have set their hands and seals this 16th day of June 1954.

Harry C. Lyles
Imogene Pepper
Claimholders

Carl R. Kerdeyer
Edward P. Taylor
Purchasers

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MINING LEASE

This indenture made the 16th day of June, 1954, by and between Harry C. Liles and Imogene Rippey, hereinafter individually and collectively called the Lessor, of the first part, and Carl R. Ferderer and Edward Taylor, hereinafter called the Lessee, of the second part,

WITNESSETH:

I. DEMISE AND TURN:

That the Lessor, in consideration of the sum of Two Hundred Dollars ($200.00) and other valuable consideration, the royalties, covenants, and agreements hereinafter reserved and expressed to be paid and performed by the Lessee, hereby lets and demises unto the Lessee the following described mine, mining property, and mining claims, situated in the Sinbad Area of the San Rafael Swell Area and in the vicinity north of the Temple Mountain Mining District, Emery County, Utah, to-wit:

together with the appurtenances. To have and to hold unto the Lessee for the term of 99 years from the date hereof, expiring on the 16th day of June, 2053.

II. LESSEE'S COVENANTS:

And the Lessee covenants with the Lessor as follows, to-wit:

1. TO WORK MINE: To enter upon the said mine or premises and work the same in a manner necessary to good and economical mining, so as to take out the greatest amount of ore possible, with due regard to the safety, development, and preservation of said premises as a workable mine.

2. TO WORK CONTINUOUSLY: To work and mine said premises as aforesaid steadily and continuously within a reasonable time from the date of this Lease, and to continue said operations in accordance with good mining practice and custom.

3. TO KEEP ACCOUNTS, ETC.: To keep correct accounts and to render to the Lessor monthly statements showing the amount of all ore taken from the premises and the yield thereof, and the cost of hauling and milling the same, and to pay to the Lessor as rent the toyalty as next hereinafter set forth.

EXHIBIT "A"

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4. ROYALTY: That said Lessee in consideration thereof, shall well and truly pay or cause to be paid to the said Lessor, or their agent, administrators or assigns, as rental for property leased to them a royalty on all ores marketed in an amount equal to that percentage of the net mill, smelter or U. S. Government Purchasing Agency return value, including all premiums and special bonuses paid by the U. S. Government Agency return, hereinafter defined, which is applicable according to the following schedule:

On all ores, smelter return: Six percent (6%) of the Net Mill.*

*NET MILL, OR SMELTER RETURN is defined as the mill, smelter or United Stated Government Purchasing Agency schedule value, after all charges for transportation, sampling and assaying charges, if any, have been first deducted, then the royalty as aforesaid shall accrue to the Lessor. All other costs shall be borne by the Lessee exclusively, and shall not be treated as a deduction in determining the value.

5. SHIPMENTS: To ship all ores or mineral products whatsoever mined by said Lessee from the above described premises in the name of the Lessee, properly identified to the milling plant, smelting plant, or U. S. Government Purchasing Agency, purchasing such products with instructions to the milling plant, smelting plant or other purchasing agency to pay direct to the Lessors their royalties in accordance with the above royalty schedule on duplicate returns thereof. However, the royalty may be paid directly to the Lessor on duplicate returns thereof, from the Lessee, if such agreement or arrangement is made in writing.

6. INDEMNITY: The Lessee is solely responsible for all labor and materials furnished and used in connection with this lease, and the Lessor shall in no way be held responsible for any indebtedness whatsoever incurred by the Lessee in the prosecution of operations under this lease.

And the Lessee further agrees to indemnify and save harmless the Lessor from all loss, expenses, claims and demands whatsoever arising or growing out of any accident or personal injury sustained by the Lessee or any employee of said Lessee from whatsoever cause arising while in or upon the property of the Lessor.

7. TO TIMBER: Sufficiently to timber the said mine and to repair

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all old timbering wherever necessary.

8. TO ALLOW LESSOR TO ENTER: To allow the lessor and his agents to enter into all parts of said mine to inspect it.

9. TO KEEP DRAINED, ETC.: To keep at all times the drifts, shafts, tunnels, and other passages and workings of the said premises thoroughly drained and clear of loose rock and rubbish of all kinds.

10. DEFAULT: In the event said Lessee shall fail to make any payment of royalty or any other payment herein provided for, at the time and in the manner stipulated, or shall fail to keep or perform any of the conditions, covenants or agreements herein contained on their part to be kept and or performed, said Lessor may give to said Lessee a notice in writing of such default, and if such default is not corrected within (30) days after the giving of such notice, the lease herein shall terminate and become forfeited and said Lessor may reenter, without legal process said premises and the whole thereof, and repossess the same and remove all persons therefrom.

11. TAXES: The lessee will pay their proportion of all net proceed taxes or any other taxes that may accrue against them on the leased premises, which are applicable to the operations conducted on leased premises. And further, the said Lessee will carry at their own expense all Workmen's Compensation Insurance, Occupational Disease Disability Insurance, Utah Unemployment Compensation, and Federal Insurance Contributions.

12. ANNUAL ASSESSMENT WORK: The work performed by the Lessee may be considered as assessment work for the benefit of the unpatented claims aforesaid, and such work shall be done at least sixty (60) days prior to the first of July of each year, and, if necessary, the Lessee will make the necessary affidavits required by law for such purpose and have them recorded.

13. WARRANTY: Lessor hereby warrants with Lessee that they have properly staked the claims and have done all assessment work and filed all necessary affidavits to have the claims in good standing and that they are the legal title owners of said claims and have in no way incumbered or transferred any interest in said claims.

14. TO DELIVER UP: To deliver up to the Lessor the said premises

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with the appurtenances and all improvements, in good order and condition, with all shafts and tunnels and other passages thoroughly clear of rubbish and drained, and the mine in all points ready for immediate continued working (accidents not arising from negligence alone excusing) without demand or further notice, on the expiration of this lease or at any time previous, upon demand for forfeiture.

IN WITNESS WHEREOF THE PARTIES HERETO HAVE SET THEIR HANDS AND SEALS THE DAY AND YEAR FIRST HEREINABOVE INDICATED.

Harry C. Liles
Morgan Kopp
Lessors

Carl R. Ferderer
Edward P. Taylor
Lessees

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EXHIBIT "B"

List of Claims

Name of Claim	Owned by	Entry number and page number of entries made in County Court House records, Castle Dale, Utah	
San Rafell (No number)	Harry C. Liles	91602	
San Rafell #1	" " "	91603	
San Rafell #2	" " "	91604	
San Rafell #3	" " "	91605	
Big Red #1	" " "	91606	
Big Red #2	" " "	91607	
Big Red #3	" " "	91608	
Big Red #4	" " "	91609	
Lone Wolf #1	Harry C. Liles and Imogene Rippey, jointly	87273	Page No 211
Lone Wolf #2	" " "	87274	
Lone Wolf #3	" " "	87275	Page No 213
Lone Wolf #4	" " "	(entry number missing)	
Lone Wolf #5	" " "	87658	Page No 569
Queen Sheba #1	Harry C. Liles	87657	Page No 568
Queen Sheba #2	" " "	(entry number missing)	Page No 212
Queen Sheba #3	" " "	(entry number missing)	
Sunset #1	" " "	89221	Page No 170
Sunset #2	" " "	89222	Page No 171
Sunset #3	" " "	89223	Page No 172
Sun Light #1	" " "	88013	Page No 289
Sun Light #2	" " "	88014	Page No 290
Sun Light #3	" " "	(entry number missing)	

Note: Sunset Claims Nos 1, 2, and 3 are situated within Township 22 S, Range 10 E, SLM, Emery County, Utah. All other claims listed above are situated in Township 23 S, Range 10 E, SLM, Emery County, Utah.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA
Date Rec'd
JUN 28 1955
BUREAU OF MINES
Denver, Colorado

Form Approved.
Budget Bureau No. 42-R1035.2.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

RECEIVED
JUL - 1 1955

Not to be filled in by applicant

Docket No. 3883
Metal or Mineral Uranium
Date Received 7-1-55
Estimated Cost $ 4,847.50
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: ALLIED URANIUM MINES, INC.
708 Newhouse Bldg.,
Salt Lake City, Utah.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

(*b*) State any mine name by which the property is known. Sunlight claims

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore uranium

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 30 days and be completed within 9 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

[x] Money [ ] Use of equipment owned by you [x] Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated April 22, 1955

Allied Uranium Mines, Inc.

By Selig Lindberg, Pres.

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

RECEIVED
JUL - 1 1955

ASSIGNMENT AGREEMENT

This Agreement made this 30th day of September, 1954, by and between MICHAEL H. GREENE and TILLIE M. GREENE, his wife, hereinafter sometimes referred to by their last name, and the ALLIED URANIUM MINES, INC., a Delaware corporation, hereinafter sometimes called "COMPANY", and EDWARD P. TAYLOR and CARL R. FERDERER, hereinafter sometimes referred to by their last names,

W I T N E S S E T H:

WHEREAS, EDWARD P. TAYLOR and CARL R. FERDERER assigned to MICHAEL H. GREENE on the 1st day of July, 1954, a right to acquire a Lease Agreement with HARRY C. LILES and IMOGENE RIPPEY with respect to property described more particularly hereinafter; and

WHEREAS, MICHAEL H. GREENE and TILLIE M. GREENE, his wife, desire to transfer and assign all their interest in said right to the ALLIED URANIUM MINES, INC., a Delaware corporation; and

WHEREAS, ALLIED URANIUM MINES, INC. desires to accept the aforesaid right to be bound by the terms and conditions under the aforesaid agreement; and

WHEREAS, EDWARD P. TAYLOR and CARL R. FERDERER desire to release MICHAEL H. GREENE and his wife, TILLIE M. GREENE, from any liability by reason of said assignment;

IT IS, THEREFORE, AGREED:

In consideration of the sum of TEN DOLLARS ($10.00) and other good and valuable consideration, receipt of which is hereby acknowledged, the parties agree as follows:

1. <u>On the part of the GREENES.</u>

A. The GREENES hereby transfer and assign all their rights incident and pursuant to an Assignment Agreement with CARL R. FERDERER and EDWARD P. TAYLOR dated the 1st day of July, 1954, with

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respect to acquiring a lease on the following described property:

Name of Claim	Entry number and page number of entries made in County Court House records, Castle Dale, Utah
San Rafell (No number)	91602
San Rafell #1	91603
San Rafell #2	91604
San Rafell #3	91605
Big Red #1	91606
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Big Red #3	91608
Big Red #4	91609
Lone Wolf #1	87273 Page No. 211
Lone Wolf #2	87274
Lone Wolf #3	87275 Page No. 213
Lone Wolf #4	(entry number missing)
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Sun Light #3	(entry number missing)

Note: Sunset Claims Nos. 1, 2 and 3 are situated within Township 22 S., Range 10 E., SLM, Emery County, Utah. All other claims listed above are situated in Township 23 S., Range 10 E., SLM Emery County, Utah.

The foregoing shall also include all fractional claims or tracts resulting from surveys and/or amended notices of location.

B. The GREENES further agree to execute whatever additional documents may be necessary to effectuate the intent and purposes of this assignment agreement.

2. On the part of the COMPANY.

The ALLIED URANIUM MINES, INC. accepts the assignment from the GREENES and agrees to be bound by all the terms and conditions thereof in connection with the lease of the aforedescribed property.

3. On the part of TAYLOR and FERDERER.

EDWARD P. TAYLOR and CARL R. FERDERER hereby release and discharge the GREENES from all and any further liability in connection with the Assignment Agreement dated July 1, 1954, relating to the aforedescribed mineral lease and they agree and hereby do accept and substitute the ALLIED URANIUM MINES, INC., a Delaware corporation, as a successor to all the right, title and interest of MICHAEL H. GREENE in the Assignment aforesaid.

4. Miscellaneous.

The parties agree that this agreement shall be binding on their heirs, executors and assigns.

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed and sealed the day and year first above written.

Michael H Greene (SEAL)
MICHAEL H. GREENE

Tillie M. Greene (SEAL)
TILLIE M. GREENE

Rose De Liberg
Witnesses to the signatures of Michael H. Greene and Tillie M. Greene, his wife.

Edward P. Taylor (SEAL)
EDWARD P. TAYLOR

Ann Smedley
Witnesses to the signature of Edward P. Taylor

Carl R. Ferderer (SEAL)
CARL R. FERDERER

Ann Smedley
Witnesses to the signature of Carl R. Ferderer

ALLIED URANIUM MINES, INC.

ATTEST:

By- Selig Finsley
Treasurer

Secretary

(SEAL)

STATE OF UTAH)
COUNTY OF Salt Lake)

I hereby certify that on the 25 day of September, 1954, before me, a Notary Public in and for said county and state, personally appeared EDWARD P. TAYLOR and CARL R. FERDERER, being personally well known to me as two of the persons who executed the foregoing agreement, and acknowledged the same to be their acts and deeds.

IN WITNESS WHEREOF, I have hereunto affixed my hand and official seal this 25 day of September, 1954.

Ann Smedley
Notary Public

My Commission Expires:

STATE OF NEW YORK)
COUNTY OF)

I hereby certify that on the 13 day of September, 1954, before me, a Notary Public in and for said county and state, personally appeared MICHAEL H. GREENE and TILLIE M. GREENE, his wife, being personally well known to me as two of the persons who executed the foregoing agreement, and acknowledged the same to be their acts and deeds.

IN WITNESS WHEREOF, I have hereunto affixed my hand and official seal this 13 day of September, 1954.

Rose de Libero
Notary Public

My Commission Expires:

ROSE DE LIBERO
NOTARY PUBLIC, STATE OF NEW YORK
No. 52-9367150
Qualified in Suffolk County
Commission Expires March 30, 1955

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ASSIGNMENT

WHEREAS on the 16th day of June 1954 Harry C. Liles and Imogene Rippey entered into an Option Agreement with a right to acquire a Lease Agreement with Carl R. Ferderer and Edward Taylor, hereinafter called "Assignor", and

WHEREAS Michael H. Greene, 80 Warren Street, New York City, N. Y. hereinafter called "Assignee", is desirous of obtaining said Option Agreement and the right to the said Lease Agreement,

NOW THEREFORE, for and in consideration of the sum of Sixteen Thousand Five Hundred and no/100 Dollars ($16,500.00), to be paid strictly in accordance with the following terms by check made payable to and delivered to Assignor, to-wit: Eight Thousand Two Hundred Fifty and no/100 Dollars ($8,250.00) at the time of the execution of this assignment but in any event no later than July 6, 1954, and Eight Thousand Two Hundred Fifty and no/100 Dollars ($8,250.00) additional to be paid either within 15 days after completion of survey and abstract opinion on the mining claims covered by said Option and Lease Agreements, or on or before August 15, 1954, whichever is the later date, the Assignor hereby sells, assigns, transfers and sets over all of their rights, title and interest in and to that certain Option Agreement dated June 16, 1954, and upon exercising the said Option then to include all rights, title and interest in and to the Lease Agreement hereinbefore referred to, to Michael H. Greene, whose address is 80 Warren Street, New York City, N. Y., subject to the following terms and conditions:

1. There is to be reserved to the Assignor a two percent (2%) overriding royalty on any and all of the mining claims covered by said Option Agreement and said Lease Agreement, if said Option is exercised by Assignee herein, subject to the same terms and conditions as the royalty reservation made in the Lease Agreement attached to the said Option Agreement.

2. It is mutually agreed and understood that the payment of the Eight Thousand Two Hundred Fifty Dollars ($8,250.00) last abovesaid, either within 15 days after completion of survey and abstract opinion or on or before August 15, 1954, whichever is later, shall act as a condition subsequent in that if the money is not paid in accordance with the terms and conditions hereof then the title shall immediately revest

in the Assignor and this Assignment shall become null and void and of no effect whatsoever, and any and all monies paid hereto shall be retained by the Assignor as necessary expense money in procuring the option and the rental for the right of investigation of said claims. The parties hereto mutually agree that said sum is and shall be the exact amount due said Assignor. Said sum is in addition to any sums advanced or to be advanced by Assignee or his representative to Assignor to cover Assignor's expenses and commitments in connection with geological reports, assay reports, abstracts, surveys, reproduction work, travel and legal fees involving said claims.

3. It is hereby understood and agreed that the said sum of Sixteen Thousand Five Hundred Dollars ($16,500.00) is computed on the basis of Seven Hundred Fifty Dollars ($750.00) per claim, and that in the event title to any of said claims should upon survey and abstract examination prove not to be valid in the name of Claimholders Harry C. Liles and or Imogene Rippey so as to preclude Assignee from obtaining title and possession thereof for mining purposes in accordance with this assignment and said Option Agreement and attached Lease Agreement, then in that event Assignee is not obligated to pay any sums as to those claims; provided further that any and all sums advanced or paid by Assignee to Assignor for any claims that prove to be invalid as aforesaid shall be reimbursed to Assignee by Assignor.

4. Assignee agrees and covenants with Assignor that should the claims covered by this Assignment be placed in a corporation, already formed or to be formed, that Assignee will grant or cause to be granted to Assignor the ownership of two percent of the total capital stock to be issued or distributed to founders of said corporation and to subscribers of said stock prior to public offering, and this covenant shall be and it is hereby agreed that this covenant will run with the lease aforesaid and be a condition attaching to said lease.

5. Assignor hereby grants unto Assignee the right to assign or transfer the interest herein to any person or corporation, subject to the conditions hereof.

6. The Assignee herein agrees to execute any and allpapers necessary to effect the reservation of the royalty and of the transfer and revestment of the title in accordance with the terms of this Assignment, if

necessary, and the Assignee further agrees to abide by all of the terms of the Lease Agreement and to hold the undersigned Assignor harmless from any and all liability in accordance with the terms of said Lease Agreement.

7. Assignor agree to execute any and all documents necessary to carry out the terms and intent of this Agreement upon request by Assignee whether herewith or that may become necessary in the future.

Dated this 1st day of July 1954.

Earl R. Gerdzer

Edward Taylor

Assignor

Michael H. Green

Assignee

OPTION AGREEMENT

WHEREAS, Harry C. Liles and Imogene Rippey, hereinafter referred to as "Claimholders", are the legal owners and or possessors of certain mining claims in the San Rafael Swell area and in the vicinity north of the Temple Mountain Mining District, Emery County, Utah, and more particularly described and listed on Exhibit "B" attached hereto and made a part hereof.

WHEREAS, Carl R. Ferderer and Edward Taylor, of Salt Lake City, Utah, hereinafter called "Purchasers" are interested in acquiring an option to lease said mining claims.

NOW, THEREFORE, for and in consideration of the sum of Two Hundred Dollars ($200.00) and other valuable consideration, the receipt whereof is hereby acknowledged, the Claimholders do hereby give and grant unto the Purchasers, or their assigns, the sole and exclusive option to acquire the above mentioned claims. Said option to be exercised by Purchasers depositing in the mail, postage prepaid on or before Twenty-One (21) days from the date hereof, written notice to Harry C. Liles, care of Airport Chevron Station, Price, Utah, who shall act as agent for the Claimholders in receiving notice of Purchasers' desire to exercise the option on said claims, and by depositing in escrow or tendering payment of monies to claimholder as follows: The sum of Six Hundred Fifty ($650) Dollars per claim for a lease on each and all of the claims listed in Exhibit "B", attached hereto, payable on the basis of Three Hundred Twenty-Five Dollars ($325.00) down per claim at the time of exercise of this option and the balance of $325.00 per claim to be paid within 15 days after completion of survey work and rendering of legal abstract opinion on the said claims, subject to the provisions hereof.

Claimholders further agree that payment by Purchaser of the sum of $650.00 per claim is conditioned upon valid and unencumbered title ownership to each said claim in the name of Claimholders, and provided that in the event title to any of said claims should prove upon examination and survey to be defective or invalid then as to those claims no payment whatsoever shall be made to Claimholder; provided further that any sum or sums paid to Claimholders by Purchasers for claims having invalid title shall be reimbursed to Purchaser by Claimholders. Said lease to be in the form of Exhibit "A", attached hereto, except as to any lands already covered by a Federal oil and gas lease, and as to those, a lease conforming to the AEC lease will be used.

Claimholders agree that they will file an application and all papers necessary to procure an Atomic Energy Commission Lease in accordance with Circular 7, on any and all lands in said claims that are covered by Federal oil and gas leases upon demand of purchasers or their assigns, and that they will, upon demand, assign said lease or leases to the Purchasers herein, or their assigns, reserving only the royalty indicated on the other leases.

Claimholders further agree to give to Purchasers or their assigns, an irrevocable power of attorney to act in the name of Claimholders, individually and collectively, to file any and all forms necessary to perfect title on any and all of these claims with the Atomic Energy Commission.

Claimholders further agree that upon the exercising of the option by the Purchasers or their assigns they will execute and file any and all papers necessary to the perfection of said claims under existing law or any future laws that may be enacted regulating the filing of claims for the exploration and production of uranium and allied minerals.

Claimholders further agree upon the exercising of the option by Purchasers or their assigns that they will assign, sell or transfer any and all rights and benefits to which they may be entitled under the Atomic Energy Commission Act insofar as they relate to these particular claims, including but not limited to shipment rights, bonus money and privileges to sell ore.

Claimholders agree with the Purchasers that this option can be sold, transferred and assigned without the consent of the Claimholders herein, it being realized and understood that the Purchasers may transfer this to an operator to develop the said property.

IN WITNESS WHEREOF, the parties hereunto have set their hands and seals this 16th day of June 1954.

Harry C. Lidel
Imogene Pippy
Claimholders

Carl P. Kroeger
Edward P. Taylor
Purchasers

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MINING LEASE

This indenture made the 16th day of June, 1954, by and between Harry C. Liles and Imogene Rippey, hereinafter individually and collectively called the Lessor, of the first part, and Carl R. Ferderer and Edward Taylor, hereinafter called the Lessee, of the second part,

WITNESSETH:

I. DEMISE AND TURN:

That the Lessor, in consideration of the sum of Two Hundred Dollars ($200.00) and other valuable consideration, the royalties, covenants, and agreements hereinafter reserved and expressed to be paid and performed by the Lessee, hereby lets and demises unto the Lessee the following described mine, mining property, and mining claims, situated in the Sinbad Area of the San Rafael Swell Area and in the vicinity north of the Temple Mountain Mining District, Emery County, Utah, to-wit:

together with the appurtenances. To have and to hold unto the Lessee for the term of 99 years from the date hereof, expiring on the 16th day of June, 2053.

II. LESSEE'S COVENANTS:

And the Lessee covenants with the Lessor as follows, to-wit:

1. TO WORK MINE: To enter upon the said mine or premises and work the same in a manner necessary to good and economical mining, so as to take out the greatest amount of ore possible, with due regard to the safety, development, and preservation of said premises as a workable mine.

2. TO WORK CONTINUOUSLY: To work and mine said premises as aforesaid steadily and continuously within a reasonable time from the date of this Lease, and to continue said operations in accordance with good mining practice and custom.

3. TO KEEP ACCOUNTS, ETC.: To keep correct accounts and to render to the Lessor monthly statements showing the amount of all ore taken from the premises and the yield thereof, and the cost of hauling and milling the same, and to pay to the Lessor as rent the toyalty as next hereinafter set forth.

EXHIBIT "A"

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4. ROYALTY: That said Lessee in consideration thereof, shall well and truly pay or cause to be paid to the said Lessor, or their agent, administrators or assigns, as rental for property leased to them a royalty on all ores marketed in an amount equal to that percentage of the net mill, smelter or U. S. Government Purchasing Agency return value, including all premiums and special bonuses paid by the U. S. Government Agency return, hereinafter defined, which is applicable according to the following schedule:

On all ores, smelter return: Six percent (6%) of the Net Mill.*

*NET MILL, OR SMELTER RETURN is defined as the mill, smelter or United Stated Government Purchasing Agency schedule value, after all charges for transportation, sampling and assaying charges, if any, have been first deducted, then the royalty as aforesaid shall accrue to the Lessor. All other costs shall be borne by the Lessee exclusively, and shall not be treated as a deduction in determining the value.

5. SHIPMENTS: To ship all ores or mineral products whatsoever mined by said Lessee from the above described premises in the name of the Lessee, properly identified to the milling plant, smelting plant, or U. S. Government Purchasing Agency, purchasing such products with instructions to the milling plant, smelting plant or other purchasing agency to pay direct to the Lessors their royalties in accordance with the above royalty schedule on duplicate returns thereof. However, the royalty may be paid directly to the Lessor on duplicate returns thereof, from the Lessee, if such agreement or arrangement is made in writing.

6. INDEMNITY: The Lessee is solely responsible for all labor and materials furnished and used in connection with this lease, and the Lessor shall in no way be held responsible for any indebtedness whatsoever incurred by the Lessee in the prosecution of operations under this lease.

And the Lessee further agrees to indemnify and save harmless the Lessor from all loss, expenses, claims and demands whatsoever arising or growing out of any accident or personal injury sustained by the Lessee or any employee of said Lessee from whatsoever cause arising while in or upon the property of the Lessor.

7. TO TIMBER: Sufficiently to timber the said mine and to repair

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all old timbering wherever necessary.

8. TO ALLOW LESSOR TO ENTER: To allow the lessor and his agents to enter into all parts of said mine to inspect it.

9. TO KEEP DRAINED, ETC.: To keep at all times the drifts, shafts, tunnels, and other passages and workings of the said premises thoroughly drained and clear of loose rock and rubbish of all kinds.

10. DEFAULT: In the event said Lessee shall fail to make any payment of royalty or any other payment herein provided for, at the time and in the manner stipulated, or shall fail to keep or perform any of the conditions, covenants or agreements herein contained on their part to be kept and or performed, said Lessor may give to said Lessee a notice in writing of such default, and if such default is not corrected within (30) days after the giving of such notice, the lease herein shall terminate and become forfeited and said Lessor may reenter, without legal process said premises and the whole thereof, and repossess the same and remove all persons therefrom.

11. TAXES: The lessee will pay their proportion of all net proceed taxes or any other taxes that may accrue against them on the leased premises, which are applicable to the operations conducted on leased premises. And further, the said Lessee will carry at their own expense all Workmen's Compensation Insurance, Occupational Disease Disability Insurance, Utah Unemployment Compensation, and Federal Insurance Contributions.

12. ANNUAL ASSESSMENT WORK: The work performed by the Lessee may be considered as assessment work for the benefit of the unpatented claims aforesaid, and such work shall be done at least sixty (60) days prior to the first of July of each year, and, if necessary, the Lessee will make the necessary affidavits required by law for such purpose and have them recorded.

13. WARRANTY: Lessor hereby warrants with Lessee that they have properly staked the claims and have done all assessment work and filed all necessary affidavits to have the claims in good standing and that they are the legal title owners of said claims and have in no way incumbered or transferred any interest in said claims.

14. TO DELIVER UP: To deliver up to the Lessor the said premises

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with the appurtenances and all improvements, in good order and condition, with all shafts and tunnels and other passages thoroughly clear of rubbish and drained, and the mine in all points ready for immediate continued working (accidents not arising from negligence alone excusing) without demand or further notice, on the expiration of this lease or at any time previous, upon demand for forfeiture.

IN WITNESS WHEREOF THE PARTIES HERETO HAVE SET THEIR HANDS AND SEALS THE DAY AND YEAR FIRST HEREINABOVE INDICATED.

Harry C. Liles
Morgene Poppy
Lessors

Cyrel R. Sergeyer
Edward P. Taylor
Lessees

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EXHIBIT "B"

List of Claims

Name of Claim	Owned by	Entry number and page number of entries made in County Court House records, Castle Dale, Utah	
San Rafell (No number)	Harry C. Liles	91602	
San Rafell #1	" " "	91603	
San Rafell #2	" " "	91604	
San Rafell #3	" " "	91605	
Big Red #1	" " "	91606	
Big Red #2	" " "	91607	
Big Red #3	" " "	91608	
Big Red #4	" " "	91609	
Lone Wolf #1	Harry C. Liles and Imogene Rippey, jointly	87273	Page No 211
Lone Wolf #2	" " "	87274	
Lone Wolf #3	" " "	87275	Page No 213
Lone Wolf #4	" " "	(entry number missing)	
Lone Wolf #5	" " "	87658	Page No 569
Queen Sheba #1	Harry C. Liles	87657	Page No 568
Queen Sheba #2	" " "	(entry number missing)	Page No 212
Queen Sheba #3	" " "	(entry number missing)	
Sunset #1	" " "	89221	Page No 170
Sunset #2	" " "	89222	Page No 171
Sunset #3	" " "	89223	Page No 172
Sun Light #1	" " "	88013	Page No 289
Sun Light #2	" " "	88014	Page No 290
Sun Light #3	" " "	(entry number missing)	

Note: Sunset Claims Nos 1, 2, and 3 are situated within Township 22 S, Range 10 E, SLM, Emery County, Utah. All other claims listed above are situated in Township 23 S, Range 10 E, SLM, Emery County, Utah.

ALLIED URANIUM MINES, INC.
708 Newhouse Building
Salt Lake City, Utah

RECEIVED
JUL - 1 1955

(1 b) Incorporated in the State of Delaware.

(1 c) President, Michael N. Greene, 80 Warren St., New York City.

Secretary, Marc White, Donrike Bldg., 1010 Vermont Ave., N.W., Washington 5, D.C.

Treasurer, Selig Ginsburg, 8425 10th Ave., Silver Springs, Maryland.

(1 d) Not applicable.

(3 a) 3 lode mining claims and a fraction located in the southeast quarter section of Section One, Township 23 South, Range 10 East, Salt Lake Meridian, Emery County, Utah. - (see attached map).

(3 b) Sunlight Claims.

(3 c) The company has a 99 year lease on property by assignment through Carl R. Ferderer and Edward P. Taylor.

(3 d) Copy of agreements attached.

(3 e) Not applicable.

(3 f) Sunlight One. Located March 7, 1954. Recorded March 16, 1954, Book J-18, pg. 289, Entry 88013, Emery County.
Sunlight Two. Recorded March 16, 1954, Book J-18, pg. 290, Entry 88014, Emery County.
Sunlight Three. Recorded July 6, 1954, Book J-27, pg. 32, Emery County.
Sunlight Two-A. Fraction between Sunlight 2 and 3, August 13, 1954, Book J-34, pg. 483, Entry 097824, Emery County.

(4 a) See attached engineer's report and maps. The operations and work to date have been paid for by Allied Uranium Mines, and the approximate sums expended amounted to $7,300. The mine workings are open for inspection, the drill holes may or may not be open for probing. The recovered cores are available for inspection.

(4 b) There has been no production to date and there are no known ore reserves.

(4 c) See attached geologic reports. It is believed that there is sufficient mineralization present on the property to warrant farther exploration as recommended in the attached reports.

(4 d) Access drilling roads have been constructed on the property sufficient for part of the drilling program. A few additional roads may have to be constructed as detailed under (6 f). Good county roads connect the property with main state and national road systems within the state. The nearest ore buying station is at Green River, a distance of 70 miles by county maintained roads.

The nearest supply points of consequence would be Price, a distance of 82 miles, and Green River, a distance of 70 miles. It would be most satisfactory to live in trailers on the claims as has been done during past operations.

(4 e) Sufficient labor is available, drilling would be done on contract. Materials, supplies, equipment and power would be furnished by the contractors. Water is available from wells in the vicinity not exceeding 5 miles distance from the operations.

(5 a) We would be exploring for uranium.

(5 b) See attached report dated January 18, 1955 and the attached supplement.

(5 c) The work will start within 30 days and be completed within 7 months from date of an exploration contract.

(5 d) Three qualified geologists are on the board of directors: Mr. S. R. Mahoney, Mr. J. J. Beeson and Dr. George Hansen. All of these men are and have been consulting geologists for some years. The field work to date and in the immediate future on this group will be supervised by C.M.F. Peters, a consulting geologist and mining engineer with 21 years of practical experience.

The drilling will be done by a competent contract driller, Mr. J. L. MacBride, owner of Mac's Exploration Company

First Phase Exploration

(6 a) Independent contracts

Bulldozing, 10 days @ $80 per day, access roads. .	$ 800
Bulldozing, 10 days @ $80 per day, rim stripping .	800
Moving on and off job	300
Total	$ 1,900

Drilling 44 holes @ 200 feet each -	
8,000 feet of plug bit drilling @ $1.75 per ft. .	$14,000
800 feet core drilling @ $4.00 per ft..	3,200
Total	$17,200

(6 b) Surveying of drill holes

2 men, 16 hrs in field, $8.50 per hr	$ 136
Jeep on highway, 8¢ per mile, 350 miles	28
Jeep on job, 12¢ per mile, 200 miles	24
Office work, $5.00 per hr, 24 hours	120
Travel time, 1 day	68
Miscellaneous	24
Meals, lodging and other expenses	50
Total	$ 450

Consulting geological and engineering service

5 trips of 2 days each, 10 days @ $100.	$ 1,000
Office work, 10 days @ $50.	500
Transportation, 5 trips @ 10¢ per mile, 450 miles each	225
Per diem, $10 per day, 10 days.	100
Total	$ 1,825

(6 c) All material and supplies for drilling and dozing to be to the contractor's account, except following items:

Drill core boxes, 10 @ $5.00.	$ 50
Survey stakes, 100 @ 10¢ each	10
Miscellaneous	100
Total	$ 160

(6d) Probe rental . . . . . $ 60

(6 e) None

(6 f) Access roads accounted for under (6a) bulldozing contract.

(6 g)	Assays, 100 @ $3.00.	$ 300
	Accounting @ $30 per month, 4 months	120
	Miscellaneous items.	180
	Total	$ 600

Payroll taxes, workmen's compensation, insurance, to be paid by individual contractors.

(6 h)	Contingencies	$ 750

Total for first phase of exploration	$22,945.00
Company's share @ 25%.	5,736.25
Government's share @ 75%	17,208.75

<u>Second Phase Exploration</u>

(6 a)	500 feet contract tunneling @ $30 per foot .	$15,000

(6 b) Surveying at rates itemized in first phase

1 day in field	$ 68
1 day travel time.	68
1 day office time.	40
Travel costs, miscellaneous.	64
Total	$ 240

Consulting geologist and engineering service

5 trips of 2 days each, 10 days @ $100 . . .	$ 1,000
10 days' office work @ $50	500
Transportation, 5 trips @ 10¢ per mile, 450 miles each trip	225
Per diem, $10 for ten days	100
Total	$ 1,825

(6 c)	500 feet of 12 lb track, 2 tons @ $150 . . .	$ 300
	350 pieces of track tie @ 25¢.	87.50
	Total	$ 387.50

(6 d) All equipment furnished by contractor

(6 e) None

(6 f) None

(6 g)	Assays, 100 @ $3.00.	$ 300
	Accounting, 5 months @ $30	150
	Total	$ 450

Insurance, payroll taxes, etc., to be carried by contractor.

(6 h)	Contingencies	$ 1,000

Total for second phase of exploration. . . .	$18,902.50
Company's share @ 25%.	$ 4,725.63
Government's share @ 75%	$14,176.87

Total costs of both projects	$41,847.50
Company's share @ 25%.	$10,461.87
Government's share @ 75%	$31,385.63

(7 a) Yes, see attached agreements and subordination agreements of claim owners and operators.

(7 b) Cash.

CHESTER M. F. PETERS
MINING GEOLOGIST AND ENGINEER
P. O. BOX 2262
SALT LAKE CITY 10, UTAH

November 12, 1954

Mr. Carl Ferderer
Newhouse Building
Salt Lake City, Utah

Dear Mr. Ferderer:

Below are the suggestions I have to make on the Sunlight claim group which we visited November 10th.

The mineralization is very weak but the favorable part is that where carbonaceous material is found in your cuts it is mineralized. However, carbon is scarce and for the most part lacking in the channel structure which is now exposed.

The bulldozing which has been done to date along the face of the rim has exposed a definite smaller channel but the deepest part of the channel occurs directly behind the center of the "X" where the access road divides at the rim face and it is still not exposed. This area should be cleaned off to expose the face of the channel so that it can be inspected and the thickness measured and checked for mineralization.

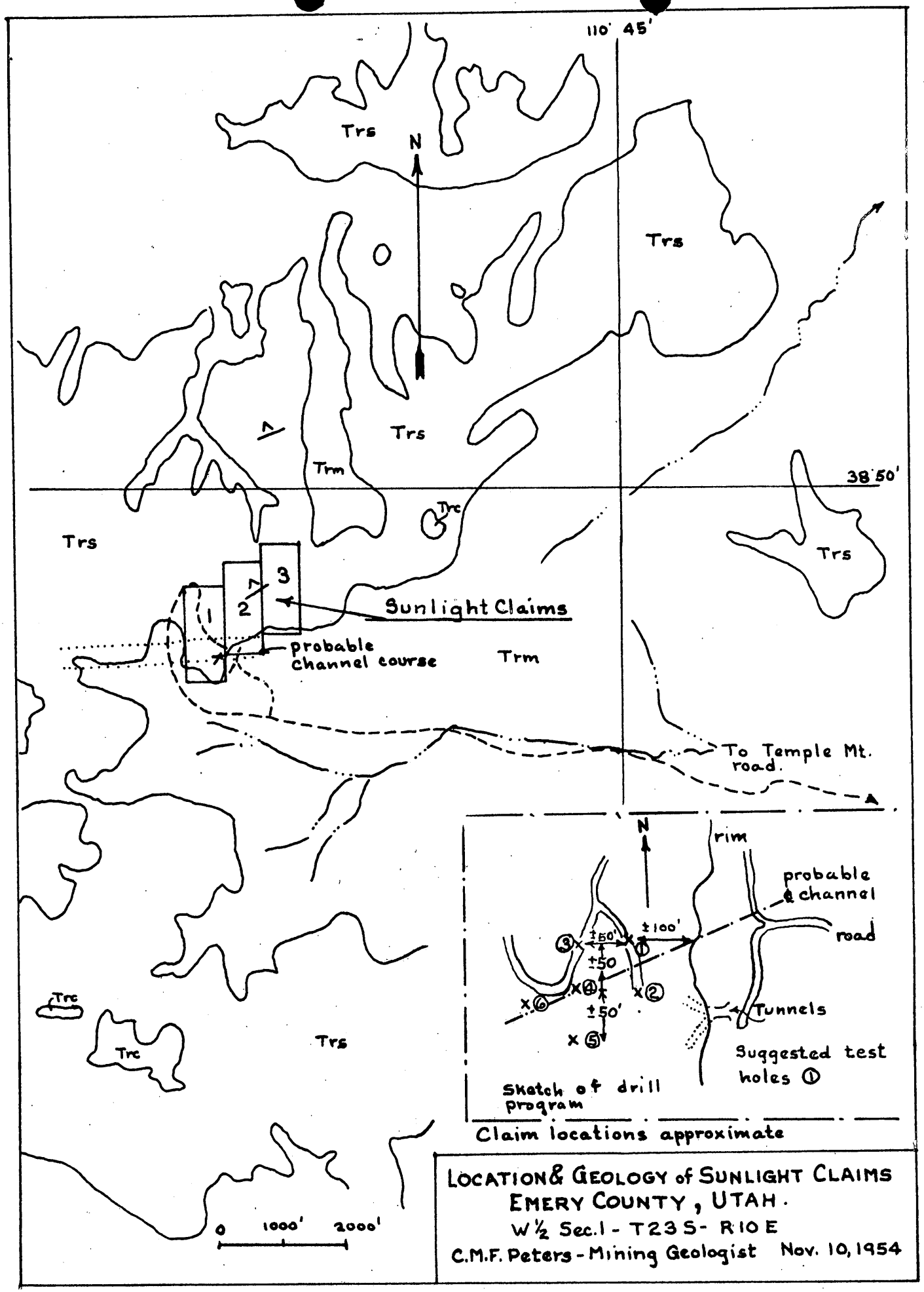
The present tunnels have been put into the south side of the main channel and they have not exposed any favorable mineralization. If either of these should be extended as a result of the suggested drilling, preference should be given to the tunnel trending to the north as this would, to my opinion, approximately crosscut the main part of the channel. Moreover, I do not recommend further tunneling at this time until the drilling has been completed so the channel does not show signs of any commercial mineralization and it is not particularly favorable.

The first hole drilled as indicated on the sketch should be drilled about 100 feet back from the rim where I indicated then on the property. This should cut the channel approximately at the center of the apparent structure. Hole 2 would cut the south side of the channel where it begins to thin. If either of these show good mineralization, additional holes should be drilled on 25 feet centers north and south of these.

The next line of holes should be drilled about 50 feet to the west of the first line on 50 feet spacing. Hole 4 should strike about the center and holes 3 and 5 should land about the outside of the main deep channel section and define it. Again, if mineral is encountered 25 feet spacing should be given additional holes. Hole 6 should land in the middle of the central channel about 100 feet farther west along the center line which should be more clearly defined by the preceding work. If none of these holes contain commercial grade ore the property should be abandoned, as the possibilities of finding ore would not justify further expenditures.

Very truly yours,

Chester M. F. Peters



LOCATION & GEOLOGY of SUNLIGHT CLAIMS
EMERY COUNTY, UTAH.
W½ Sec. 1 - T23S - R10E
C.M.F. Peters - Mining Geologist Nov. 10, 1954

CHESTER M. F. PETERS
MINING GEOLOGIST AND ENGINEER
P. O. BOX 2262
SALT LAKE CITY 10, UTAH

January 18, 1955

Mr. Carl Ferderer
Newhouse Building
Salt Lake City, Utah

Dear Mr. Ferderer;

I left Green River, where I had stayed overnight, on Thursday morning. I met Mr. McBride with a party on the road to the mine. I got stuck once on the way in to the mine, and we arrived at the turnoff to the mine about noon.

We had to break trail through the snow to the mine from the main road and it took considerable time. We finally arrived on the road where the drill holes are located around 2:30 P.M. It was very cold and icy.

We probed two holes and on the third the probe stopped working. I checked some of the cores but as nothing farther could be done, we decided to go to Green River for the night as the crew were on their way to Grand Junction for the weekend. We left the property about 4:30 and arrived in Green River after dark. Dick Prodzinski stayed with me to help me the following day.

The next morning we drove back to the property and arrived there about 10:00. I experimented with the rented geiger and probe again and found that some of the batteries were burned out. I luckily had some of the type with me so I replaced them and we were able to probe the third hole. Number four hole was blocked by a cave and although Mr. Prodzinski dug in the ice on the road where hole number five should have been for more than an hour, we could not find a trace of it. I then surveyed the holes and road to tie them in with the tunnels. We found two unmarked corners and shot them in with stadia in the hopes that we could identify them later.

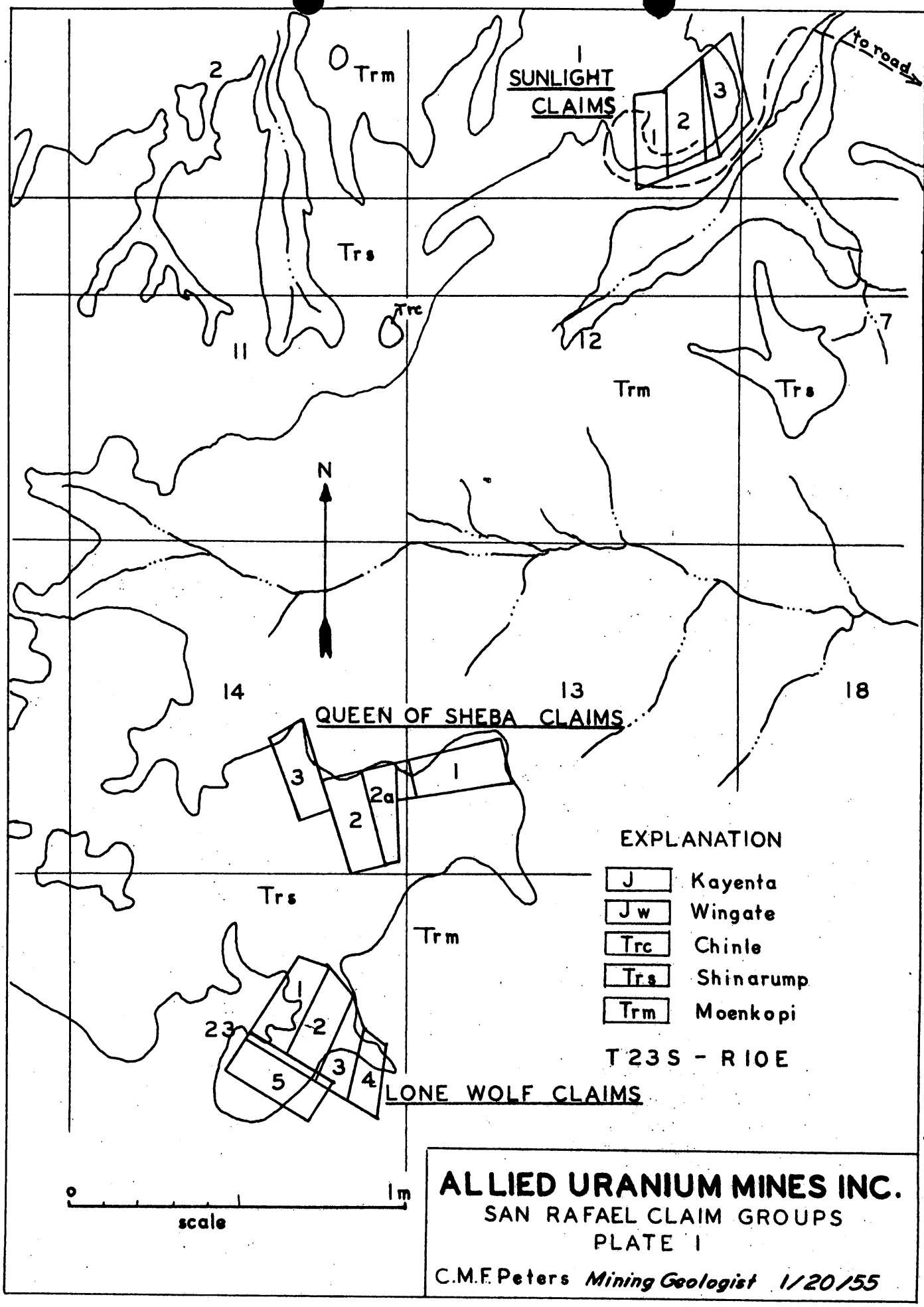
I drove back to Salt Lake City, arriving here about 11:00 P.M.

I am attaching a list of expenses for the trip and my charges, along with a report on the status of the work to date.

Very truly yours,

Chester M. F. Peters

Chester M. F. Peters


SUNLIGHT CLAIMS
to road
Trm
Trs
Trc
QUEEN OF SHEBA CLAIMS
LONE WOLF CLAIMS
N
EXPLANATION
J Kayenta
Jw Wingate
Trc Chinle
Trs Shinarump
Trm Moenkopi
T 23 S - R 10 E
0
1m
scale
ALLIED URANIUM MINES INC.
SAN RAFAEL CLAIM GROUPS
PLATE I
C.M.F. Peters Mining Geologist 1/20/55

CHESTER M. F. PETERS
MINING GEOLOGIST AND ENGINEER
P. O. BOX 2262
SALT LAKE CITY 10, UTAH

CUMLROOT CLAIM

UINTAY COUNTY, UTAH

- - - - - - - - - - - - - -

DRILLING

Five holes have been drilled to varying depths and the location and details are shown on the accompanying map.

Three of the holes were probed, hole #4 was caved at about 40 feet from the top, hole #5 could not be located as it was buried under an ice cover in the road. Hole #1 and #3 were barren, hole #2 had the following results:

Barren from 0 to 168 feet			
168	feet	count	0.10
169	"	"	0.15
170	"	"	0.50
171	"	"	0.45
172	"	"	0.35
173	"	"	0.50
174	"	"	0.05

The above readings are direct from the Universal Geiger counter which was set on the scale to read up to 1%. Before running the probe in the hole the geiger was calibrated to read 0.40% plus 0.05% as background count without the probe. The probe was then put in and run down the hole about 4 feet and it read 0.05% as background. The count cut off very sharply above and below the mineralized zone.

The contact with the Weekopi red beds occurred at 191 feet in this hole. The core above this consisted mainly of fine sandstones to siltstones with occasional beds of gray shale. There was gray shale and very fine siltstone both above and below the mineralized zone. There was about ten inches of core recovered in the ten feet containing the mineralized zone between 164 and 174 feet and this did not count. The ore zone is soft and was entirely lost in the cuttings. A slight count could be found with a geiger in specs on the cuttings pile.

The location of this hole is directly north of tunnel 2, which is being driven due north. The tunnel itself is in the thicker part of the channel and the count

increases from 0.10% at the south to 0.25% background at the face. The face contains several thin coaly seams in sandstone containing some clay nodules, but nowhere does there seem to be more than a background count. The fact that the count increases as the tunnel advances is encouraging. It is now 40 feet deep and going down dip at about 5 degrees. In comparing the elevation of the contact at the exposed rim with that in the drill holes down dip, the average dip is a little over 11 degrees.

All holes from the various holes were checked with a Geiger and there was no sign of mineralization in any of them.

[illegible]

From surface observations during my first trip to the property, the channel trend appeared to be nearly due west in order to line up with a channel trending across the erosion gully to the west of the zone on which the claims are located. This assumption is still possible, as there are no holes to the west or northwest except hole #1. This is barren and could be located off the edge of the main channel. (See sketch lines A-A).

It is improbable that any but a curved mineralized channel could connect hole #2 and the tunnel in the main channel. (Lines B-B). Hole #2 may be an isolated blob of mineral such as a log, or it may represent a subsidiary channel. (Lines C-C). The relative location of the mineralized zone does not check with the location of the channel in the rim face on which the tunnels are driven. It is possible that the obvious Geoscopi contact may be in error due to bleaching and should be higher in the hole, as there is similar bent above and below the mineralized zone, as it is on the exposed rim face.

Additional holes should be drilled on each side of hole #2 at intervals of 25 feet. Should no mineral be found on one side or the other or both, then a hole half way between should be drilled until the mineralization is definitely outlined. Should mineral be found in one or both of the first holes, then additional holes should be drilled farther out until the mineral borders are reached.

When the mineralized area is defined by the above drilling, then holes should be put down as indicated on the sketch along the existing roads: one at the hill foot part of the road near the junction; one due north of tunnel 2 which would be about 100 feet ahead of the

tunnel face. The information from these two holes should indicate where further drilling should be attempted. Should nothing be found, then holes H 3 and H 4 should be drilled; if nothing be found, then H 5. These holes are about 150 feet apart.

The information obtained by drilling out from hole 2 should indicate the width of channel to be expected and this would govern the interval for exploring the area between it and the rim.

Should mineral be found in any of the H series of holes, then the same procedure should be followed to explore the channel width as was done for hole 2. Assuming that mineral is found in the new holes, then a trend of the mineralized channel can be ascertained and future drilling plotted to extend it.

Should a block of ore be developed, then the decision of a tunnel location can be made. An extension of tunnel 2 for exploration purposes can be justified by the increase in background count.

A dust collector should be placed so that the cuttings can be saved for assay should a mineralized zone be cut in the future. Each interval of ten feet should be saved until either the core is obtained and it is barren, or the hole proved and determined barren.

In laying out the core for record, small wooden blocks marked in pencil should be inserted at proper intervals with the core. These will stand rain and moisture better than paper. It is all right to remove the core from the boxes and lay them out on the ground as is done at present if the depth records are put with them as described above.

Chester M. F. Peters

Chester M. F. Peters
Consulting Geologist

January 26, 1955.

ALLIED URANIUM MINES, INC.
708 Newhouse Bldg., Salt Lake City, Utah

(5 b) Supplemental Report to Attached Reports.

Plate (A) shows approximate location of 28 proposed holes which are planned to be put in first. However, the exact location and spacing of the holes will depend on the results of the drilled holes as the work progresses. The numbering is the tentative order of drilling which may be changed depending on results obtained.

Additional rim stripping is contemplated as indicated on the map, to see if evidences of other channels can be found, at places where more than normal background count is found. The exact location of the access roads will depend on topography and what is needed to advance the drill program as it progresses.

It is estimated that the average hole will not exceed 200 feet in depth, so the program is set up for 44 holes. It is believed that 10% of a hole will be cored while the balance will be plug drilled.

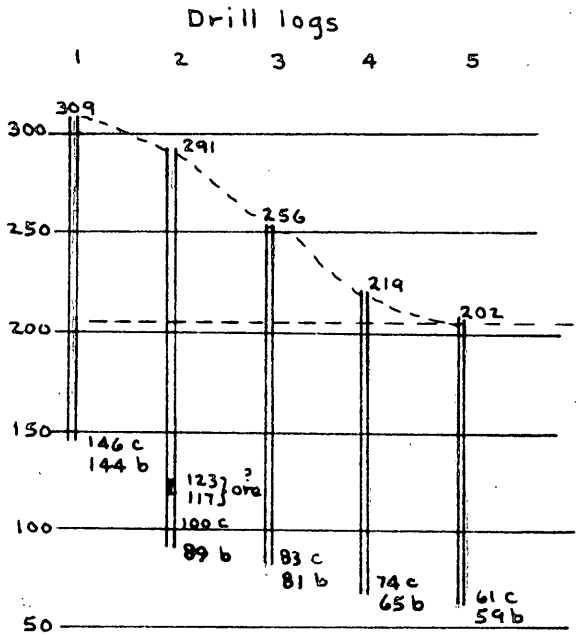
The prospect tunnel will be driven in from the best location to cut any mineralization disclosed by the drill program. It is anticipated that the first phase of drilling and the second phase exploration by tunneling will overlap somewhat, as drilling will take about five months with one rig, and tunneling about five months with one crew. This work will be done by contract miners who will furnish their own equipment and supplies. Thus the company will have no investment in machinery or equipment.

Should developments from the above program prove that farther work on the ground is unjustified at any time, then the program will be terminated at that point.

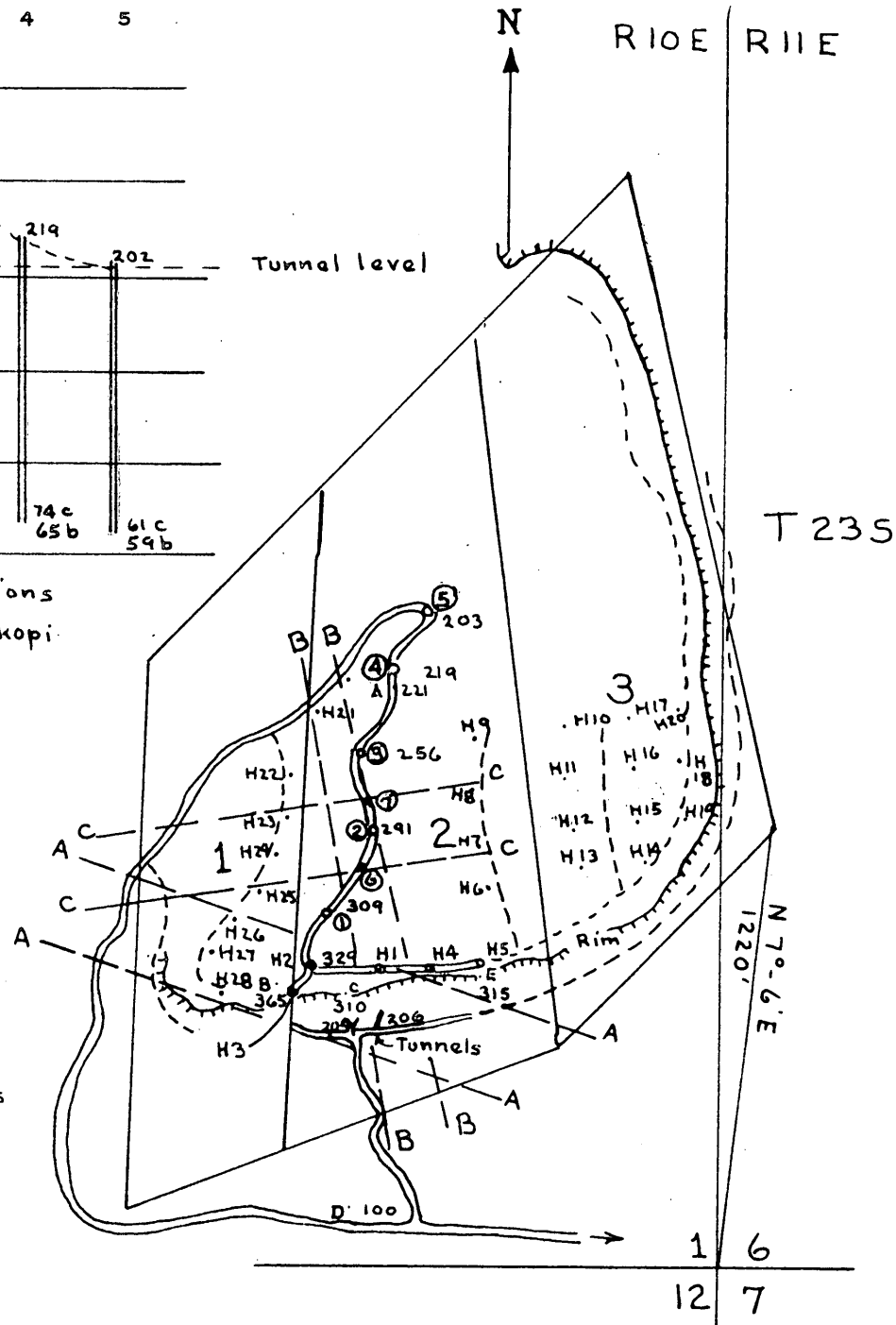
Holes 6 and 7 were recently drilled and both had mineralization in them, but have not been checked by the geologist as yet. Thus, holes 1 through 9 as proposed may give more clear indications as to a channel trend. The location of farther holes would determine in more detail any indications found.

Chester M. F. Peters
Chester M. F. Peters
Mining geologist and engineer

April 29, 1955



Relative elevations
c- contact Moenkopi
b- bottom



approximate dip and strike of beds

Elevations .203 at stations B
Proposed drill holes H2
Probable channel trends A
Drilled holes ③ •

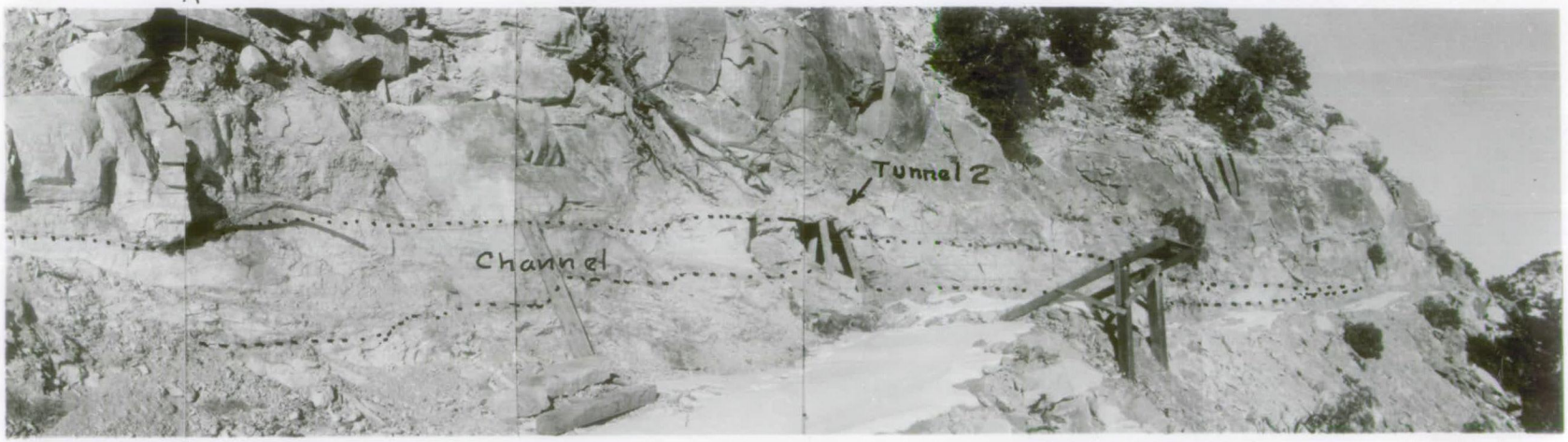
Scale 1" = 500'

Existing roads
Proposed roads

ALLIED URANIUM MINES INC.
SUNLIGHT CLAIM GROUP

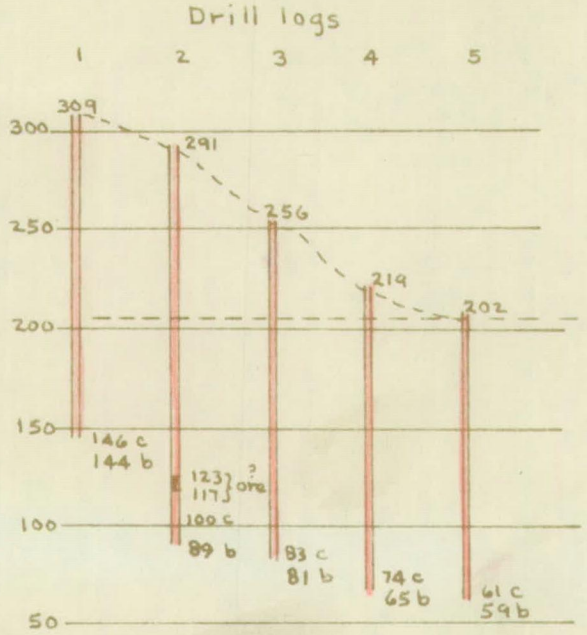
C.M.F. Peters Mining Geologist Jan. 18, '55

A
Tunnel 1
A

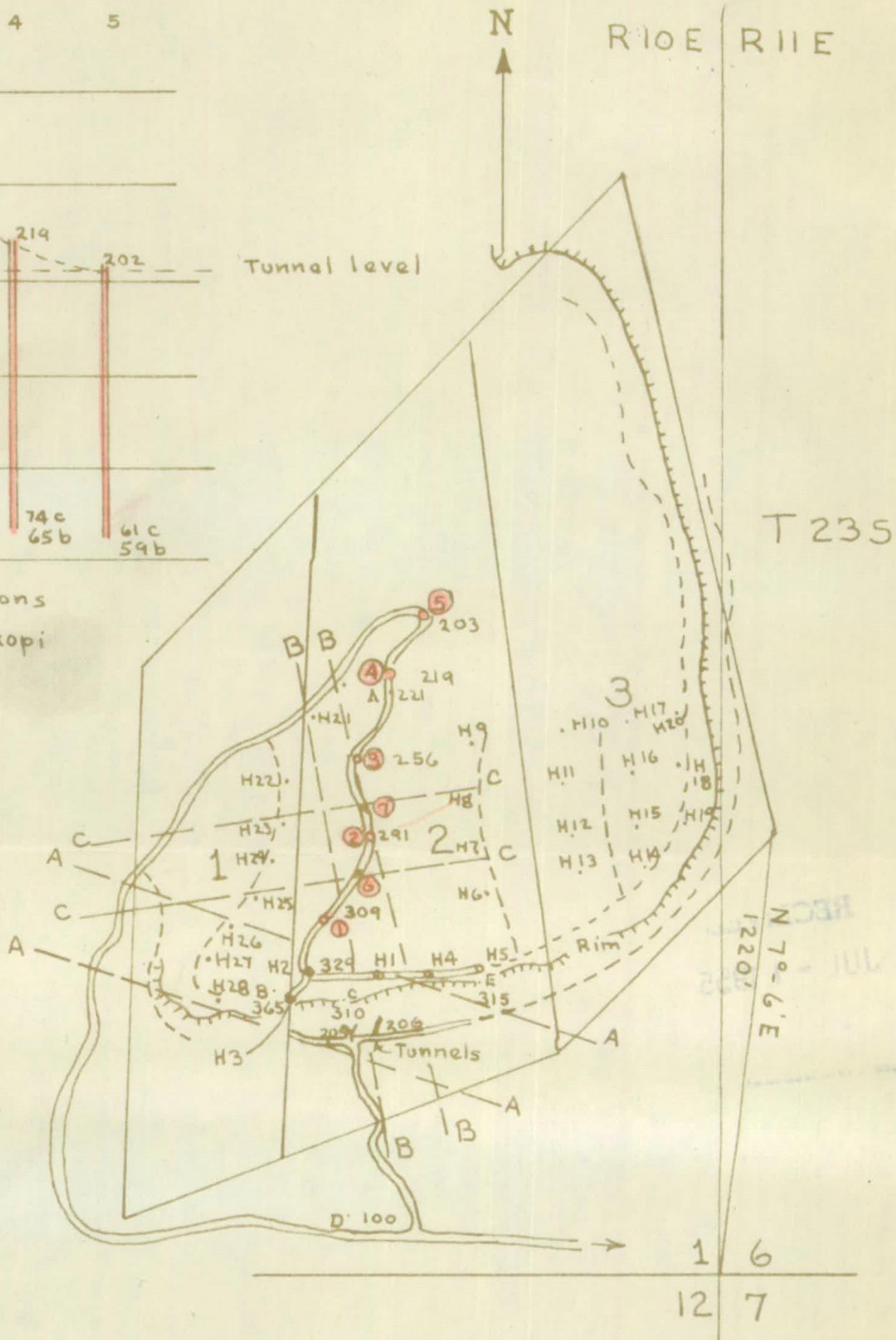

A
Tunnel 2
Channel
A

Looking North

East from B



Relative elevations
c- contact Moenkopi
b- bottom



approximate dip and strike of beds

Elevations .203 at stations B
Proposed drill holes H2
Probable channel trends — — A
Drilled holes ③ •

Scale 1" = 500'

Existing roads
Proposed roads

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SUNLIGHT CLAIM GROUP

C.M.F. Peters Mining Geologist Jan. 18, '55

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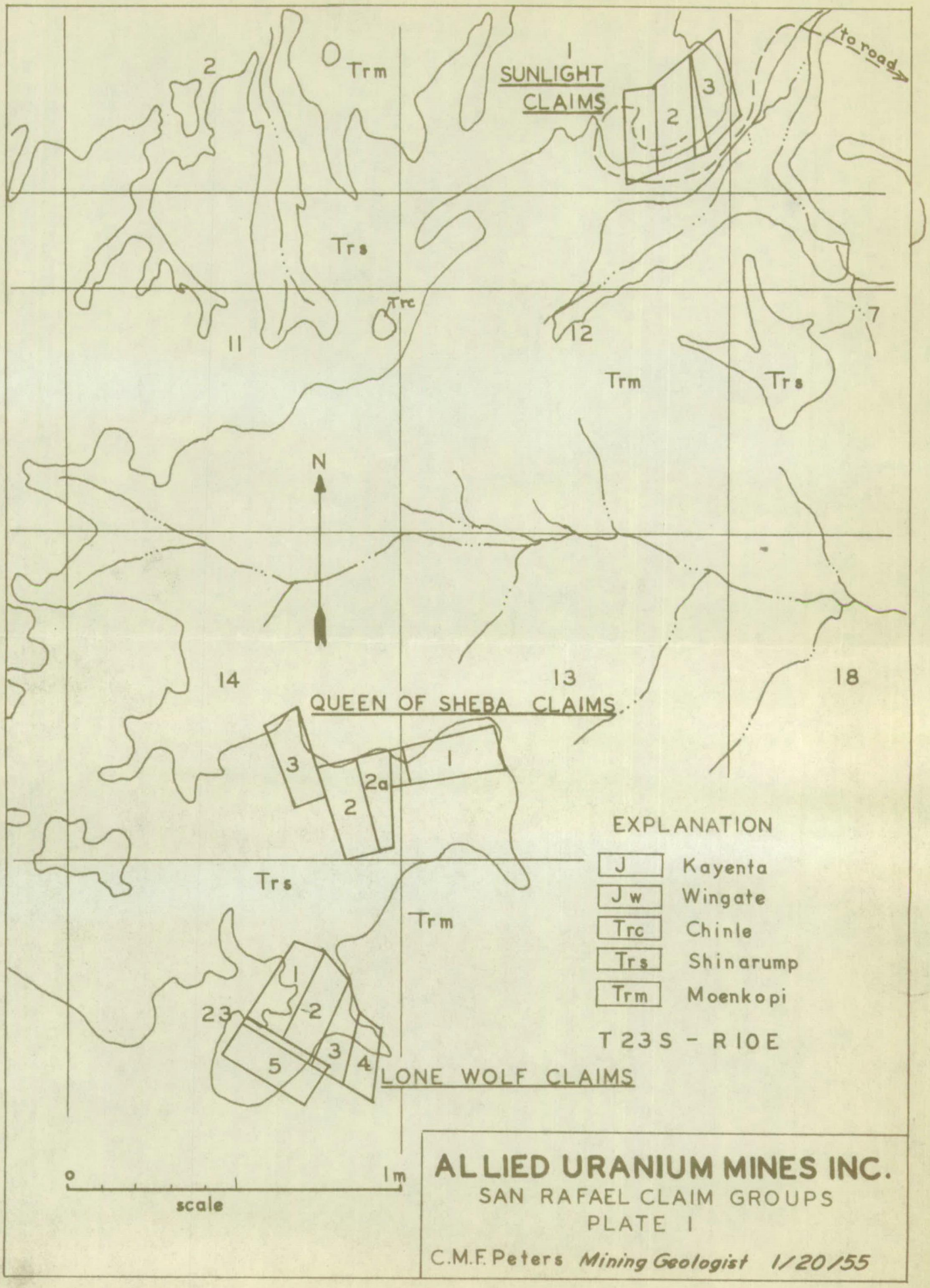
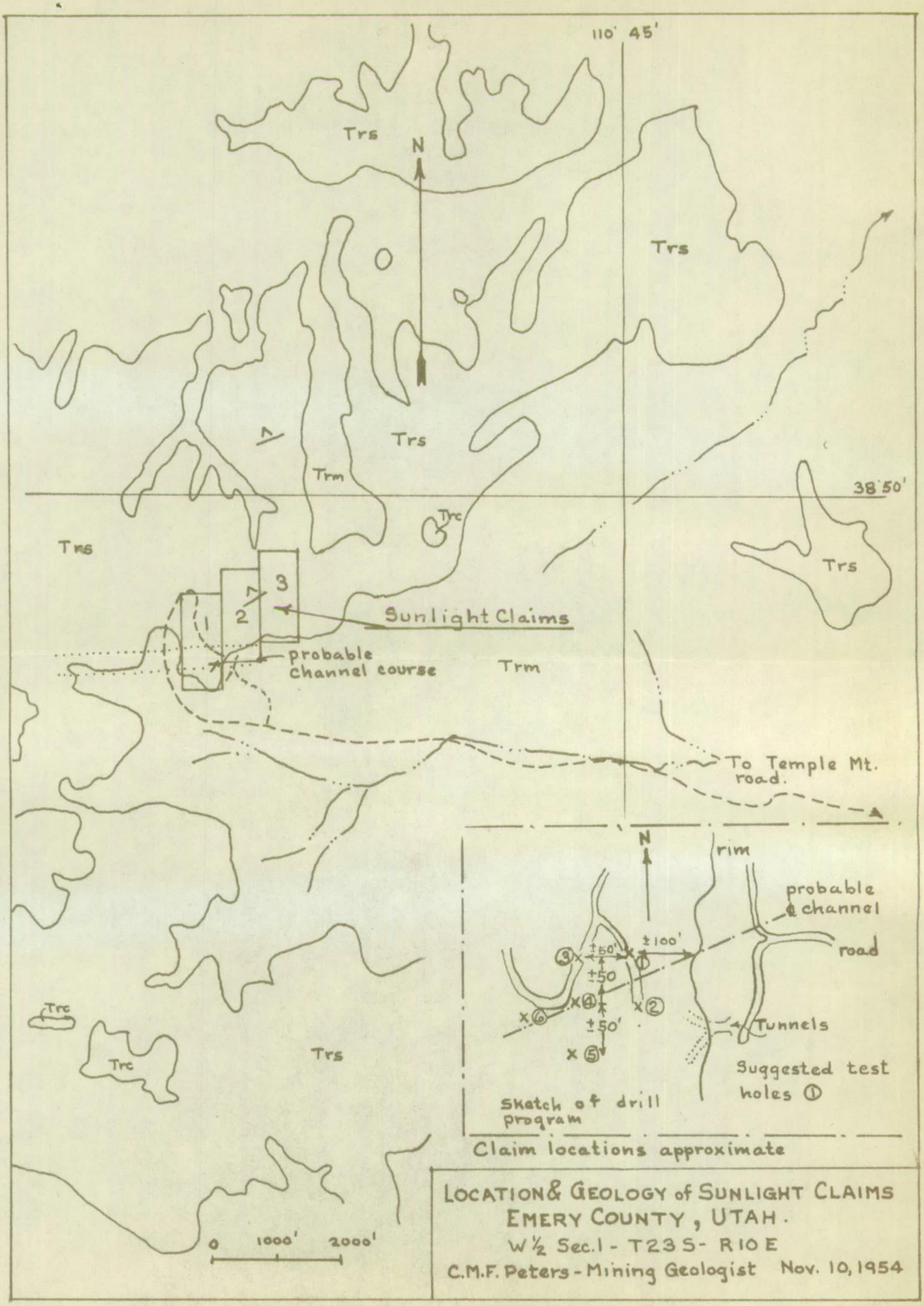


ALLIED URANIUM MINES INC.

SAN RAFAEL CLAIM GROUPS

PLATE I

C.M.F. Peters *Mining Geologist* 1/20/55



LOCATION & GEOLOGY of SUNLIGHT CLAIMS
EMERY COUNTY, UTAH.
W½ Sec. 1 - T23S - R10E
C.M.F. Peters - Mining Geologist Nov. 10, 1954